Comparative analysis of activity based costing as an alternative to the traditional costing methods in SASSA

By

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submitted in accordance with the requirements

for the degree of

MASTER OF PHILOSOPHY

IN

ACCOUNTING SCIENCES

at the

UNIVERSITY OF SOUTH AFRICA

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November 2019

Table of Contents

DECLARATION

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I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality-checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.

_____ _____

SIGNATURE DATE

ACKNOWLEDGEMENTS

I hereby wish to express my gratitude to the following individuals who enabled this dissertation to be timeously completed:

- First and foremost, I would like to thank my Lord and Saviour Jesus Christ whose unconditional love and guidance sustained me. You gave me wisdom, understanding, patience and endurance to accomplish my goals. Thank you Lord.
- A special thank you to my supervisor, Professor Oberholzer, who has been very supportive with my studies. I wish to express my sincere gratitude for your support, advice and patience in reading, correcting and commenting on the drafts of my dissertation. May God richly bless you.
- I am grateful to my dear friend and technical advisor, Dr Makhado, who always motivated me with his professional commitment and encouragement enabled me to complete this study.
- To my wife Tintswalo, you were there for me every step of the way. I thank you for the help you provided when I needed you. Thank you very much for the love and support you gave me during my studies. I love you and may God bless you.
- To my two sons Nyiko and Ntalo and daughter Shongile, thank you for your understanding when I didn't have time to devote to you during the weekends so that I could do my research. I love you guys.
- To all those who participated on the semi-structured interviews, I thank you all.
- To my beloved mother Cloudinah, who passed on during the critical moment of this project, gave me parental love and guidance until the day she departed to be with the Lord. I will always love you and may her soul rest in peace.
- To my dad, I am grateful to have a parent like you, your love, encouragement and leadership inspired me, I appreciate your sacrifice for me, well done.
- To my two brothers, Mark and Wright, two sisters, Winnie and M'rose, thank you for your sacrifices and support, God bless you.
- To my mother in-law Doris, thank you for the lovely mum that you are. God bless you.
- I also wish to express my thanks to the SASSA staff for their friendly support during my study.

ABSTRACT

The South African Social Security Agency (SASSA) is the mechanism that enables service delivery to alleviate poverty in South Africa through the payment of social grants as mandated by the Social Security Agency Act No. 9 of 2004. The rapid increase of social grant beneficiaries in the past decade, fuelled by social inequality, directly affects the administration cost associated with social grants. This study aimed to investigate the allocation of indirect costs related to the administrative elements that makes it possible for SASSA to pay social grants. Semi-structured interviews were conducted; the study concluded that ABC (activity-based costing) could be implemented as an alternative to the traditional costing (TC) method on a pilot project basis. The study also recommended a framework for SASSA to consider in laying the foundation to start the process of ABC implementation. Drawing from the research conducted, further studies on the implementation of ABC principles within the public sector could be pursued.

KEYWORDS: Activity-based costing; traditional costing; activity-based budgeting; time-driven activity-based costing; activity-based management; indirect cost; social grants; grant application process; steps to implementation; administration cost per grant.

NKOMISO

Ejensi ya Vuhlayiseki bya Vanhu ya Afrika Dzonga ku nga *South African Social Security Agency (SASSA)* i ndlela leyi endlaka leswaku mphakelo wa vukorhokeri wu koteka ku hunguta vusweti eAfrika Dzonga hikwalaho ka ku hakeriwa ka timalimpfuneto ta vanhu (social grants) tanihileswi swi pfumeleriweke hi Nawu wa Social Security Agency Act 9 wa 2004. Ku ndlandlamuka ka vavuyeriwa va malimpfuneto ya vanhu swi khumbha hi ku kongomisa tihakelo ta vulawuri leti fambelanaka na timalimpfuneto ta vanhu. Dyondzo leyi yi kongomisiwile eka ku lavisisa mphakelo wa tihakelo to ka ti nga kongomisi leti fambelanaka na swiyenge swa vulawuri leswi endlaka leswaku SASSA yi kota ku hakela timalimpfuneto ta vanhu. Ku endliwe ti-semi-structured interview. Dyondzo yi kumile leswo ti-activity-based costing (ABC) ti nga tirhisiwa hi ndlela yo cincana na maendlelo ya vupimahakelo bya ntolovelo eka projeke ya nkarhinyana. Dyondzo yi bumabumerile leswaku ku anakanyiwa rimba ro nyika mianakanyo yo sungula maendlelo yo tirhisa ABC.

MARITOYANKOKA: *Activity-based costing*; vupima-hakelo bya ntolovelo; *activity-based budgeting*; *time-driven activity-based costing*; mafambiselo ya *activity-based management*; tihakelo to ka ti nga kongomisi; timalimpfuneto ta vanhu; mafambiselo yo endla xikombelo xa malimpfuneto; magoza ya tirhelo; tihakelo ta vulawuri ku ya hi mpfuneto.

OPSOMMING

Die “South African Social Security Agency” (SASSA) verlig armoede in Suid-Afrika deur ingevolge die “Social Security Agency Act” 9 van 2004 sosiale toelaes te betaal. Die aansienlike toename in die aantal begunstigdes het ’n uitwerking op die administrasiekoste van sosiale toelaes. Hierdie studie ondersoek die toewysing van indirekte koste ten opsigte van die administratiewe elemente wat SASSA in staat stel om sosiale toelaes te betaal. Halfgestruktureerde onderhoude is gevoer. In hierdie studie word tot die gevolgtrekking gekom dat aktiwiteitsgebaseerde kosteberekening (ABK) as ’n alternatief vir en as ’n proefprojek die tradisionele kosteberamingsmetode geïmplementeer kan word. ’n Raamwerk word aanbeveel wat as ’n grondslag kan dien vir die implementering van ABK.

Sleutelwoorde: Aktiwiteitsgebaseerde kosteberekening; aktiwiteitsgebaseerde begroting; tydgedrewe, aktiwiteitsgebaseerde kosteberekening; aktiwiteitsgebaseerde bestuur; indirekte koste; sosiale toelaes; toelae-aansoekprosedure; implementeringstappe; administrasiekoste per toelae.

LIST OF TABLES

LIST OF FIGURES

LISTS OF ABBREVIATIONS AND ACRONYMS

ABB	Activity-based Budgeting
ABC	Activity-based Costing
ABM	Activity-based Management
BAS	Basic Accounting System
CPS	Cash Paymaster Services
DSD	Department of Social Development
ERP	Enterprise Resource Planning
GDP	Gross Domestic Product
MDG	Millennium Development Goals
MTEF	Medium-Term Expenditure Framework
NDP	National Development Plan
PFMA	Public Finance Management Act
SAPO	South African Post Office
TC	Traditional Costing
TD ABC	Time-driven Activity-based Costing
TOC	Theory of Constraint

CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 INTRODUCTION

Even though the achievement of equality is one of the core founding values of the South African Constitution, South Africa is still one of the most unequal societies in the world (Ruano, 2012). The social assistance programme has grown substantially since 1994, with 2.9 million recipients compared to the more than 17 million grants being paid out monthly (South African Social Security Agency (SASSA), 2017/18; SOCPEN System).

The substantial rate of increase in beneficiary numbers since the era of democracy is important and, as a result, it became a building block to the realisation of the right to social security, as enshrined in Article 27 of the Constitution, 1996 (Act No.108 of 1996) (SASSA, 2017/18). SASSA is the vehicle within which service delivery to alleviate poverty in South Africa is driven as mandated by the Social Security Agency Act No. 9 of 2004 (Breslin, 1975). SASSA administrates eight types of grants, namely, old-age grant, disability grant, war veterans grant, foster child grant, care dependency grant, child support grant, grant-in-aid and social relief of distress grant.

SASSA currently uses a traditional costing method, which has some shortcomings and limitations. Therefore, it is imperative that an accurate costing model for the administrative cost for social security grants is urgently sought and implemented. Furthermore, with activity-based costing (ABC), measuring and reporting the resources consumed in such an administrative process are more accurate than traditional costing methods (Drury, 2011).

This study aims to investigate the allocation of indirect costs associated with the administrative elements that make it possible for SASSA to pay social grants. The study will further explore how the application costing systems and other management accounting techniques could provide accurate indirect cost allocation. The accurate allocation of indirect costs is crucial when determining the efficiency in managing the escalating administrative cost of social assistance in SASSA.

The fundamental managerial accounting concepts in this study are ABC, which is a costing approach that allocates to cost objects in accordance to the activities performed for the cost objects (CIMA, 2005). Activity-based budgeting (ABB) is an extension of ABC and is applied to the budget allocation process and focuses on the costs of activities required to generate goods and services by allocating costs to isolated activity cost pools (CIMA, 2005). Activity-based management (ABM), a sub-section of cost management focusing on cost reduction and continuous improvement, is based on the principle that costs are consumed by activities, therefore, proper control of these activities will assure that costs are managed in the long-term (Drury, 2011). Finally, time-driven activity-based costing (TDABC), as a variation of ABC, is a costing method that determines the unit cost of supplying capacity and measures the "time required to perform a transaction or an activity" while identifying the cost of unused capacity (Kaplan & Anderson, 2003).

1.2 BACKGROUND

1.2.1 Introduction

South Africa's social grants provide a systematic form of income to the most impoverished households and is government's most direct mechanism used in attempting to eradicat poverty. As evidenced, the highest number of social grants were identified as child support grants (SASSA, 2013/14). It was reported that the social security system has successfully reduced poverty, irrespective of the method utilised to quantify the impact it has on the poverty levels (Neves, Samson & Van Niekerk, 2009).

An important question that remains is the sustainability of the social grants system, especially since, in the 2019/20 financial year, SASSA projects to increase the total number of grants from an estimated 17.7 million in 2018/19 to 18.1 million by the end of March 2020. The estimated budget for social assistance grants for the 2019/20 financial year is R175 billion (SASSA, 2019/20). Ensuring the effectiveness of the social grants system is crucial given that the total government expenditure grew from R1.2 trillion in 2014/15 to R1.8 trillion in 2019/20, as projected in the Budget Review (2019). According to Smith and Stenning (2010), there are many benefits that come with social grants in society; however, some social grants are instead utilised for unintended purposes, as a result of circumstances under which the poor live.

There has been a significant effort by governments in the developing world to expand the cash transfer programmes over the past 15 years. Previous studies revealed that social grants are an important form of income in the lives of the poor people in society (Bertrand, 2003; Klasen & Woolard, 2009). A considerable number of developing countries such as Brazil, Mexico, India, Botswana, Namibia and South Africa sustain an extensive social assistance system (Townsend, 2007).

The three principal elements of the study, ABC and its two extended elements, namely, ABB, which covers the budgeting aspect, and ABM, which relates to management, are firstly explained and compared to the traditional costing method. Secondly, TDABC, which is regarded as a further development in costing and other management perspectives that are complementary and related to ABC, are explored.

1.2.2 Traditional costing method

The traditional costing method was initially intended to serve the purpose of external financial reporting; however, it lacks the required credible cost information that will enable public sector entities to be strategic in planning about products (Oseifuah, 2014). In traditional cost accounting systems, the only two elements that can be linked or associated with the products are direct materials and labour (Akyol, Tuncel & Bayhan, 2007).

According to the traditional costing method, costs are assigned to products and services in association with allocation factors such as the total number of units produced, total direct labour, total machine hours and utilising one overhead rate. Overhead costs, however, are not always linked to these volume-related measures; there are other factors such as the number of batches run and product complexity that has a direct relation to the products (Horngren, 2004; Østergren & Stensaker, 2011).

1.2.3 Activity-based costing

In contrast to the traditional costing method, the major advantage of ABC is that it assigns overhead costs to activities using activity drivers that consume a given activity as opposed to conventional accounting systems (Granof, Platt & Vaysman, 2000). An added advantage of ABC is that it circumvents the subjective allocation of overheads costs that may result in distortions on product or service costs (CIMA, 2008).

There are fundamental differences between the two costing methods; the underlying assumptions are entirely different. While the traditional costing method assumes that products or services are responsible for costs, ABC systems assume that activities are the real factors as far as cost objects are concerned. Cooper and Kaplan (1988) are regarded as pioneers and are extensively credited for the development of ABC methodology.

As suggested by Vazakidis, Karagiannis and Tsialta (2010), further research regarding the implementation of ABC in the public sector can be undertaken. Their study examined whether the costing method is applicable for the public sector. Using "this method with the cooperation of new technologies and new methods of management" could resolve all the deficiencies of the public sector to serve its citizens better.

The study by Rundora, Ziemerink and Oberholzer (2013) revealed that the ABC adopters within the South African context were in business much longer than the non-adopters. Their study further found that larger firms, in contrast to smaller firms. are adopters of ABC and their perceptions about benefits and barriers differ significantly. Their study also examined the perception of the benefits and barriers of adopting ABC in small manufacturing firms.

Previous studies revealed that ABC methods are producing less than the anticipated outcomes despite the view that the method was developed to enhance decision-making and to measure costing accuracy (Stratton, Desroches & Lawson, 2009). In their seminal work, Kaplan and Anderson (2003:131) found that a significant number of companies are no longer interested in ABC because it did not relate to their operations and it was cumbersome and expensive to implement.

The nature of services rendered by the public sector are subject to overheads-related activities and, as such, will benefit more from using ABC methodology (Becker, Bergener & Räckers, 2009). Classical work by Buttross and Schmelzle (2003) re-emphasises that ABC is more suitable for implementation in the public sector and suggests that, for strategic decisions and planning, using ABC could provide valuable cost information required in carrying out government services. When delivering much needed services for the communities, government will be armed with ABC information that will contribute towards utilisation of resources economically, efficiently and effectively.

Stratton et al. (2009:32) were motivated to search for solutions that address the key factors separating successful implementers of ABC methods from unsuccessful implementers. In his work, Kaplan (2006) found that the quality of leadership is an important factor that will determine the success or failure of ABC and balanced- score cards (BSC) implementations.

In their seminal work, Granof et al. (2000) argued that financial management improvement in the public sector and other governmental organisations can be achieved by adopting ABC methods. They further stressed that ABC systems are able to measure inputs as well as outputs. It, therefore, is important to consider the adoption of ABC in the public sector in ensuring optimal utilisation of the resources to mainly benefit the vulnerable.

1.2.4 Activity-based budgeting

The second fundamental element of the study, the ABB approach, challenges management to make resource prioritisation decisions based on the needs of the clients unlike basing the new budget on the existing one, as urged by Babbini (1999) in his influential work of 1999. The Public Finance Management Act (PFMA) provides broad guidelines on how measurable objectives must be set for each budget vote aligned with the strategic objectives of public entities (The Republic of South Africa, 1999). It, therefore, is required that any expenditure to be incurred must be linked to some form of measurable outcome.

Horngren, Datar and Rajan (2012) defined a traditional budget as a measurable expression of management's proposed plan of action for a specified period, usually a year, and aims to provide direction on what must be done to achieve the objectives. Generally, governments start by budgeting for the expenditures required to provide an estimated level of goods and services efficiently, effectively, economically and sustainably.

ABB, as an alternative to traditional budgeting, focuses on a results-orientated approach and is based on the principles that promote cost-effectiveness and accountability (Institute of Management Accountants, 2006). There, however, are reports that regard budget control as being weak because it is cumbersome to put together, it gives rise to vertical command and control emphasises the reduction of cost and is not value-creating (Neely, Bourne & Adams, 2003). Performance budgeting

and an outcome measured approach has become a central focus for public sector institutions and has led to proper links between inputs and outcomes (Mensah, Schoderbek & Werner 2009). There is, therefore, a need to use the budget to monitor and control operational efficiency.

It is noted that budgets in the public sector increase more in response to overspending than decrease in response to underspending. This pattern correlates with inefficient spending and provides a mechanism which detects possible inefficient spending behaviour (Lee & Plummer, 2007). An operating budget is effective when operational functions and the response to customer requirements are based on accurate assessment of customer needs (Grasso & Fearson, 2015).

Hansen (2011) explored the effects of three different forms of budgeting, which can be classified as rolling budgets, activity-based budgeting and beyond budgeting. He applied a model that integrates forecasting, operational planning and performance evaluation since these are critical budgeting functions. His finding was that rolling forecasts were always preferred by all departments, unlike beyond budgeting and activity-based budgeting (or ABB).

1.2.5 Activity-based management

The third key element, ABM, is the model that turns operating and product cost elements into valuable information for improvement in decision-making. ABM further provides important analysis tools and performance measures to support improvement efforts (Domingo, 2007). ABM also facilitates the search for continuous improvement by allowing management to access new perspectives regarding the performance of activities by concentrating on the sources of demand for activities (CIMA, 2001).

The white paper (Cokins, 2006) discusses the pressures for improved cost accounting in government, factors underlying resistance against ABC/M and the successful implementation of this method by the public sector. Organisations embark on activities that, in turn, consume resources, so by managing these activities allows organisations to manage costs at their source (CIMA, 2001). ABM can also be regarded as a system that promotes or supports continuous improvement and initiatives to enhance performance.

1.2.6 Time-driven activity-based costing

The study by Stouthuysen, Schierhout and Roodhooft (2014) contended that the TDABC system could assist public organisations to improve their cost management. They also urged that the implementation of TDABC could create more cost transparency and awareness. ABC is perceived to be superior to traditional costing; therefore, it was expected that traditional costing methods will gradually be replaced (Velmurugan, 2010). Among other challenges for the non-implementation of ABC in South Africa is the lack of management support (Sartorius, Eitzen & Kamala, 2007).

To provide solutions posed above, Kaplan and Anderson (2003) proposed TDABC, which operates using two elements that require only the unit cost of supply capacity and the time required to perform an activity. The solution, according to Stouthuysen et al. (2014), is to improve ABC elements and not to dump it. Their study revealed that TDABC appears beneficial for public sector organisations and reasonable in its implementation and maintenance costs, as demonstrated by the Belgian public swimming pool study.

1.3 PROBLEM STATEMENT

The rapid increase of social grant beneficiaries in the past decade, fuelled by social inequality, directly affects the administration cost associated with social security grants. The main issue facing society today is the high poverty level. Government made strides and interventions to address this challenge; however, the traditional budget method applied in SASSA is not geared towards improved costing and cost management systems. An activity-based approach of budgeting that focuses on planning, such as ABB, will be vital to consider.

The ABC model, however, could help management to understand the effect of budget cuts on activities and missions performed before they occur. The widening gap between the rich and the poor is concerning; however, the application of advanced costing and cost management tools could assist SASSA to manage the unsustainable escalation of administrative costs in distributing the social. The effect of high cost in social grants disbursement is directly linked to the ability of government to deliver basic services to the poor.

Sartorius et al.'s (2007) study showed that the extent of ABC implementation in developed countries is much higher than in South Africa, but there is inadequate evidence to support the claim. Empirical evidence is available to support how TDABC could help public organisations create more prominence for service delivery efficiencies and capacity utilisation, as urged by Stouthuysen et al. (2014).

The flexibility of the ABM model enables organisations to adjust certain elements to achieve the budget target. Furthermore, this could include adjustment of the rate for activity and resource consumption, resource capacity, resource cost and demand quantity (Hansen, Otley & Van der Stede, 2003). As outlined by CIMA, ABM is one of the many tools that could be used to improve organisational performance management. This study will consider how a TDABC system, as a new development, could help the public sector improve its cost management. This extends prior literature by demonstrating how SASSA could develop and implement TDABC to advance cost transparency and awareness, as argued by Stouthuysen et al. (2014). This research will comparatively analyse the application of ABC to TC in achieving cost-effective administration of social security grants.

Regarding the problem to be solved, this study seeks to answer an important question: Does the implementation of ABC in SASSA diminish the distortion of administrative costs in the distribution of social grants resulting from traditional cost methods? More specifically, this study must provide solutions to the following questions:

- Does the current traditional costing system, as applied in SASSA, cause administrative cost distortion?
- Is the ABC system applicable in the public sector and, specifically, in SASSA?
- Does the implementation of TDABC lead to effective cost management?

1.4 RESEARCH OBJECTIVES

To answer the research question, the study addressed the above challenges and achieved primary and secondary objectives.

The primary objective was to do a comparative analysis of ABC as an alternative to traditional costing in SASSA.

The secondary objectives were to:

a) evaluate whether the implementation of ABC (including ABM and ABB) could provide an alternative to traditional costing and promote cost-effectiveness and accountability;

b) investigate SASSA's current traditional costing method;

c) investigate the applicability of implementing ABC in the public sector, particularly in SASSA, and its effectiveness; and

d) explore how the implementation of TDABC on conventional ABC could lead to effective cost management.

In light of the above, the thesis statement is that ABC achieves a cost-effective model of managing escalating administrative costs in SASSA and maintains a sustainable allocation of resources.

1.5 DELINEATION AND LIMITATIONS

Despite the popularity of ABC in the literature, the adoption of ABC is an unknown subject within the South African context and particularly in the public sector. The population sample of the study was limited to ten (10) participants from different managerial positions; however, five (5) participants were interviewed, as saturation was reached at that stage. Participant six (6) could not proceed with the interview as it was no longer necessary.

The study was limited to participants within the finance department, as implementers and support components to the core business, with a high level of interaction with other departments. Prior ABC research lacks the South African perspective; research specifically focusing on ABC implementation within the public sector is even rarer. There is a very limited ABC adoption rate within the public sector to benchmark the best practices.

1.6 RESEARCH METHODOLOGY

1.6.1 Approach

This chapter included a brief description of the sampling and interview plan design. The method of collecting primary, any secondary data and details of the empirical study was discussed. A detailed discussion about the interview questions explained the basis and the connection to the research problem to be solved. This study also discussed the research design and basis, sampling methods, data collection and the research instruments and data analysis.

1.6.2 Research design

This study used the qualitative research method and comprised in-depth interview questionnaires in order to compare using TC with ABC. The interpretation of the open questions represents the qualitative part of the study. Cluster sampling was used to select the sample unit, as a representative sample was obtained from a population with clearly distinct strata with a greater point of certainty than is likely with a simple random sample (Walliman, 2011).

1.6.3 Data collection

The study was conducted at the workplace in SASSA and the sample consisted of colleagues in the finance department. Research conducted in the workplace will probably be limited to the number of staff and researchers must accept the outcome that flows from that system (Walliman, 2011). This brings the benefit of convenient access to participants, although this familiarity could seem to jeopardise the researcher's capacity to engage objectively with the data (Drake, 2010).

For this study, the researcher only selected knowledgeable participants, mainly from head office in the finance department. The study was dealt with in the form of in-depth interviews and the participants comprised ten (10) finance officials consisting of six (6) senior officials from head office in Pretoria and four (4) senior officials from the Western Cape region.

1.6.4 Sampling procedure

Data were collected doing interviews using open, semi-structured questions from five (5) participants, mostly at their place of work. According to Hofstee (2006), collecting reliable primary data is one of the most challenging aspects of conducting a study.

1.6.5 Data analysis

Qualitative data analysis was conducted using the interview transcript results of the semi-structured questions. The data collected was manually transformed (coded) using a spreadsheet. To enhance the validity of the qualitative part of the research, a pilot study was executed where interviews were conducted (two at a different level, i.e. four participants in total) to ensure the participants understood the questions correctly. Each participant's verbatim response was considered when analysing data to compare across the participant's views.

1.7 ETHICAL CONSIDERATIONS

Hofstee (2006) described research ethics as first identifying the potential ethical problems in the study and then seeking approval from the university. The researcher must be open and honest about the drive or purpose of his or her research. (Note that ethical clearance to execute the study was provided by Unisa – See Appendix A.)

1.7.1 Ethical issues

The researcher is aware of the responsibility to be sensitive and be respectful of participants and acknowledge their basic human rights and fully subscribe to the Ethical Code of conduct".

In particular, the following will be ensured throughout the research:

(i) Clearly define the aim and objectives of the study and the procedures to be followed before the commencing the research.

(ii) Clearly explain to all participants that participating in the study is a personal choice and they may elect to withdraw from it at any time.

(iii) It is a requirement for all participating in the study to complete an informed consent form.

(iv) Explain that their privacy will be respected at all times and that everything they share will be treated as confidential.

Furthermore, participants were assured of anonymity and were given the right not to answer sensitive and highly personal questions.

1.7.2 Informed consent

Wiles (2013) stated that the participants must be notified in detail about the aim of the study and what is to be achieved; they must be given clarity about the results and how these will be communicated. It is important for participants to have a better understanding of what their participation in the project might involve. Participants were made aware of what the potential risks and benefits of their involvement might be. Matters pertaining to anonymity and confidentiality were clearly explained on how these would be managed (see Appendix B for the participant information sheet). The researcher requested permission from the management of SASSA to conduct the research study through the organisation. Participants agreed to sign an informed consent form and accepted the request to participate in the research (see Appendix C for the participant consent form).

1.7.3 Deception of participants

Strydom and Venter (2002) described the deception of subjects as purposefully or knowingly presenting misleading information with the intention of making another person believe false information. It is, therefore, in violation to the dignity and respect to which every person is entitled. For this study, due diligence and honesty was applied and each participant was treated in a transparent and open manner.

1.7.4 Violation of privacy / anonymity / confidentiality

All information gained through participation in this study was treated with the highest form of confidentiality, will not be repeated to another person without permission and will remain autonomous. The principles of confidentiality were applied

to both the researcher and participants. The names of participants would not, in any way, be exposed or displayed, neither will the report publish or identify their names.

1.8 SIGNIFICANCE OF THE STUDY

The study established suitable factors of successfully implementing ABC in the public sector, particularly in SASSA, as a management tool. Previous studies urged that some public entities are using ABC but do not achieve the success levels they anticipated to achieve. There are missing ingredients that could lead to success in ABC implementation in public sector perspective; new knowledge could unlock the potential to succeed and allow ABC to be more effective.

This study could also serve as a framework for public service and other government institutions that have not yet adopted ABC to improve their costing systems that could provide more reliable and accurate information to improve performance.

1.9 CHAPTER OVERVIEWS

Chapter 1: Introduction and background of the study

This chapter consists of the introduction, background, problem statement and research objectives. The delineation and limitations, a brief explanation of the research methodology, ethical considerations and significance of the study were also outlined. The chapter overviews were briefly defined and provide an introduction of what can be expected.

Chapter 2: Literature Review

This chapter consists of an introduction, which focuses on the existing academic literature and provides the theoretical framework that formed the foundation of this study. The evolution of the costing systems was discussed and its advancement outlined. This chapter investigates previous related studies within the public service sector concerning the application of ABC systems. The chapter also elaborated on the fundamentals of TC versus ABC, drawing parallels regarding advantages and shortcomings. The chapter discusses the alignment to ABM techniques, performance management and the link to ABB. The framework for a successful

implementation of ABC, including the steps to be taken, was discussed. The chapter outlines factors to be considered when implementing ABC, the conversion to TDABC and other perspectives related to ABC. This chapter assists in identifying gaps in the body of knowledge regarding the implementation of ABC, particularly in the public sector.

Chapter 3: Framework for Social Security Assistance in SASSA

This chapter provides an overview of SASSA's legislative framework that underpins its existence as a driver in alleviating poverty in South Africa. This chapter also outlines the organisational structure of SASSA, focusing on the two programmes. It briefly defines the different types of social grants, the application process and the social security systems in other parts of Africa. It briefly discusses the statistical analysis of social grant numbers and its demographic concentration. This chapter discusses the social security expenditure overview, the budgetary process and the calculation of the administrative cost per grant using TC, ABC and TDABC methods.

Chapter 4: Research design and methodology

This chapter entails the research design which describes the method of investigation and the rationale of the choice. This chapter covers the methodology regarding research instruments, target population, sample design, data collection, data analysis, reliability of the findings, validity of the findings, credibility, trustworthiness and data saturation. A comprehensive discussion about the interview questions explains the basis and link to the research problem that was answered. The chapter also discusses the limitations of the method and the ethical considerations.

Chapter 5: Research findings and analysis

This chapter presents the results from the semi-structured interviews conducted, including the response rate and the analysis of results. The data that was coded is divided into themes and sub-themes. The chapter discusses the themes that were developed in more detail: theme 1, the dependent factors for successful implementation of ABC; theme 2, the importance of financial information system in the implementation of ABC; theme 3, efficient resource allocation in an ABM environment; and theme 4, applicability and perception about ABC.

Chapter 6: Summary, conclusions and recommendations

This chapter summarises all findings and proposes further research areas. A discussion on the research of the primary and secondary objectives is outlined. Conclusions are made on the basis of literature and the empirical study. This serves as a basis to recommend a framework for SASSA's future costing and cost management system. This chapter also explains the practical implication of the recommendations, the study's contribution and values its importance. Finally, the study suggests some future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter provided an introduction and background to the study. This chapter's purpose is to analyse the main issues regarding the implementation of ABC as an alternative to TC in the public sector. The first part of the chapter illustrates the development and evolution of the costing methods relating to the allocation of indirect cost. The second part focuses on the theoretical framework of TC and ABC, how each is defined and cost allocation bases. The review will focus on the primary and secondary objectives as outlined in Section 1.4 of the introductory chapter.

The third part of the chapter discusses the adoption of ABC within the public sector, the extent to which the application of ABC is taking place. The highlights of the successes and failures of ABC implementation in the context of the public sector and how this compares with the private sector is included. The fourth part relates to the fundamentals of TC and ABC focusing on the cost assignment procedures and advantages. This chapter also focuses on the shortcomings and the challenges for the implementation of ABC, particularly within the public sector, as indicated by several researchers, including Kaplan and Anderson (2003) and Stouthuysen et al. (2014). A brief discussion on ABC alignment to the ABM method in decision-making and the link with ABB for budgeting is provided.

The focus areas of the literature will bring more insight and a better perspective of the research. The fifth part discusses the framework for the successful implementation of ABC and focuses on the steps of implementation. This part also briefly demonstrates success factors for the implementation of ABC. The sixth part illustrates how the application of TDABC on conventional ABC could be simpler and faster to implement. Other perspectives related to ABC are also discussed.

2.2 EVOLUTION OF THE COSTING SYSTEMS

Previous research emphasised that the traditional costing method, which assigns overhead costs using volume-based rates on direct labour, caused distortion of cost, as outlined by Cooper and Kaplan (1988). Looking back in the early days, traditional

cost systems were established in the period when industries were labour-intensive and direct labour costs were significant (Jeyaraj, 2015). Consequently, due to technological advancement, labour is largely fixed and overheads have been a major component of the total cost.

Traditionally, the application of cost accounting was generally viewed as being relevant to the manufacturing industry and, as such, the service industry did not play a significant part in the implementation of mature cost management systems (Patil & Kshatriya, 2016). Cooper and Kaplan (1988) introduced the ABC model and it was followed by the publication of the concept in several journals. They defined the ABC method as an approach to solving the inefficiencies of traditional costing systems that frequently distort the accurate costs of processes.

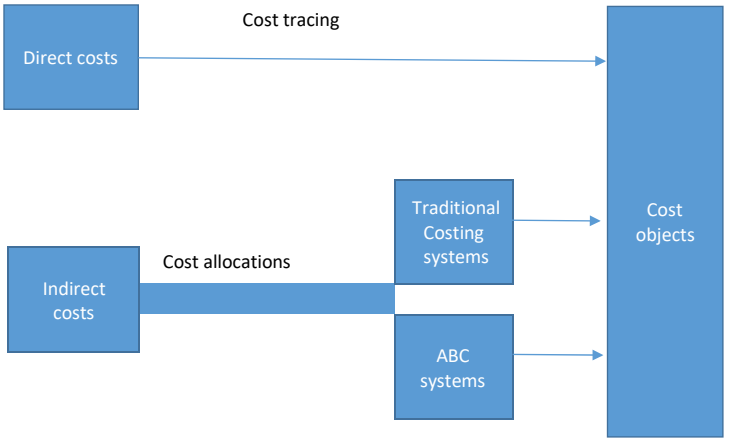

Figure 2.1: Cost Allocation and Cost Tracing

Source: Drury (2011)

As depicted in Figure 2.1, the direct costs can be accurately assigned to specific cost objects, unlike indirect costs. Indirect costs, on the other hand, cannot be directly traced to a cost object since they are common to a variety of cost objects.

2.3 THEORETICAL FRAMEWORK

ABC literature regarding the private sector has been a centre of focus, but little has been done regarding the public sector, particularly within the South African context. The appropriateness of ABC in government remains a question that must be adequately unpacked and answered. Previous studies provide some light

on the implementation of ABC in the public sector (Brown, Myring & Gard, 1991; Buttross & Schmelzle, 2003). According to literature, there has, however, been greater interest shown among public organisations.

The focus on ABC is the accuracy of cost information related to activities, clients and products. The application of ABC principles allows organisations to be more assertive about their business processes and the interpretation of cost behaviour during ABC analysis. This could lead to operational efficiency (CIMA, 2008). Management can then make better decisions regarding the delivery of the final product, for example, social grant products, the clients to be serviced, the accurate cost of delivering these products and the impact on society.

2.3.1 Traditional costing method vs activity-based costing

CIMA official terminology (2008) defines the traditional costing as a method of costing that depends on the random volumes of a fraction of overhead costs onto direct costs in order to realise a total product cost. There are three basic steps aligned to this approach:

- Adding all related costs within a production.
- Assigning costs that are not related to production to the production departments.
- Assign costs to cost objects using the overhead cost of production.

The traditional method, by applying a single cost driver rate to allocate the overhead costs, tends to misrepresent the real product costs which represent a substantial share of the product cost (Wang, Du, Lei & Lin, 2010). Consequently, this approach could lead to the incorrect pricing of product and services.

It, therefore, remains to be investigated whether ABC could be an alternative approach to the traditional costing method or the random allocation of overheads to product, services and clients. It is difficult to find non-financial information from the traditional costing method that will enable management to make decisions about products, services and clients.

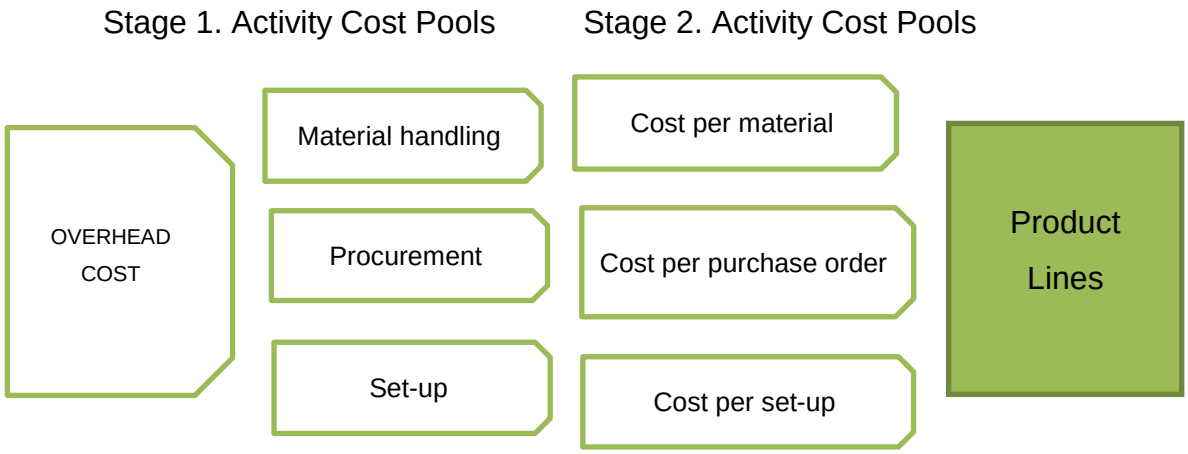

Figure 2.2: Framework of Activity-based Costing

Source: CIMA (2008)

In contrast to traditional costing methods, ABC systems initially collect overheads for each activity and then assign the costs of these activities to the cost objects triggering that activity. Figure 2.2 demonstrates an example where the first stage allocates overhead costs to activities, referred to as activity cost pools, by using applicable cost drivers for the relevant activity. The second stage illustrates the assigning of activity cost pools to cost objects using applicable activity cost drivers that measure the demands cost objects place on the activity. Theoretically, ABC can address the shortcomings posed by the traditional costing method, but it has shortcomings of its own (Oseifuah, 2014).

2.3.2 Activity-based costing conversion to time-driven activity-based costing

As outlined by Kaplan and Anderson (2007), TDABC specifically focuses on the element of time, which the conventional ABC system did not pay attention to. In the TDABC system, it is the responsibility of the organisation to have a perfect idea about the available maximum capacity employees have to perform different activities. Then the practical capacity can be estimated as a percentage of the maximum capacity; this then represents the amount of time that the employees have available to do the actual work despite the time spent on things unrelated to work or unproductive time.

Theoretically, the practical capacity is estimated at 80-85%; this represents productive time efficiently spent on work-related activities. The balance of the time is estimated at 15-20% of time that is spent on non-work related activities that do not yield any

production; examples of such activities include lunch, smoke breaks and late arrivals (Kaplan & Anderson, 2007).

The TDABC method possesses the following positive features:

- easy and fast to implement;
- incorporates data using the ERP (Oracle);
- maintenance is quicker and economical;
- the ability to scale to enterprise-wide models;
- easy to incorporate specific features for specific orders, processes, suppliers and customers;
- more visibility to process efficiencies and capacity utilisation; and
- capable of projecting future resource demands based on orders that are expected.

2.4 ABC ADOPTION WITHIN THE PUBLIC SECTOR

To effectively manage programmes, a better understanding regarding the cost to produce services must prevail, as Kee (2012) illustrated. He further emphasised the importance of determining the cost of a public service, since it empowers management to control the cost of their operations. In public service, ABC is applied as a full costing method that identifies the connection between costs objects (Tuccillo & Agliata, 2018).

In the recent context of the public services delivery, using scarce resources in a cost-effective manner will achieve a sustainable level of service delivery. Until all relevant costs connected to specific activities and outputs are captured through accrual accounting, measurements, will not be sensitive, reliable or valid. Several public organisations are gradually held answerable for their performance and are compelled to function efficiently and effectively (Melese, Blandin & Keefe, 2004).

The study by Baird (2007) investigated a gap in the literature by scrutinising the adoption of activity management practices in the public sector. Arnaboldi and Lapsley (2003) emphasised the significance of recognising the actual costs affected when delivering services to the people. They further highlighted that ABC is regarded as a crucial management practice that supports prudent financial management and continuous improvement techniques. The results of Baird's (2007) study indicated that public organisations are not accepting ABC to the same extent as the private sector,

but that larger resource-intensive organisations are more likely to adopt ABC.

It was reported that a substantial number of all UK and US public organisations apply the principles of ABC, which allocates resource costs to public services through a multistep procedure based on activity consumption (Stouthuysen et al., 2014). Examples from the US include hospitals, municipalities, libraries and other public organisations (Brimson & Antos, 1994). This is a reflection that public sector organisations are beginning to identify themselves as adopters of activity management practices such as ABC. As more pressure on accountability and efficiency is mounting for public sector organisations, there are more signs of adoption and emulation of the forms and practices of private organisations (Brunsson & Jacobsson, 2000; Stouthuysen et al., 2014).

Public organisations mainly provide services and, consequently, personnel costs often are the major cost factor in this sector. ABC could, therefore, assist in allocating overhead costs to their services (Brown et al., 1991). The study in the public sector by Becker et al. (2009) noted the pressure arising from industrial revolution efforts to design workflows more efficiently and to provide services in a more customer-oriented manner. This further put a burden on public organisations, not only to deliver quality services, but to do so under difficult economic challenges. Therefore, the emphasis is on value for money and accountability as per the broad guidelines and principles of the PFMA.

In the South African context, the awareness that resources are becoming increasingly scarce and it thus becomes crucial to use them cost-efficiently to deliver services. The study by Oseifuah (2013) reported “using ABC to overcome shortcomings in traditional approaches in the public sector to promote effective financial management and, consequently, efficient service delivery”. The study found that only a few municipalities adopted ABC. This lack of public sector participation is a missed opportunity in introducing cost management principles that may reveal the accurate cost of rendering services. Bvumbi's (2017) study established that ABC adoption has a slight influence on the costs of water resource management at the Water Trading Entity (WTE).

2.5 FUNDAMENTALS OF TRADITIONAL COSTING AND ACTIVITY-BASED COSTING SYSTEMS

Cooper and Kaplan (1988) defined the ABC system as a costing method that allocates indirect overheads to products by using activity cost drivers. Similarly, this model identifies the cost pools or activity centres in organisations and assigns costs to cost drivers based on the number of activities used (Akyol et al., 2007). More accurate product costs can be calculated because of advanced product costing systems; the quality of decision-making will thus improve (Cooper & Kaplan, 1988).

According to Dejnega (2011), ABC applies the fundamental connection between cost objects and activities and between activities and bases. The system originated from the industrial sector because of displeasure with the volume-based method as it assigns overhead costs arbitrarily (Rundora & Selesho, 2014; Szychta, 2010).

As a result of increased business competitiveness, organisations sort accurate and relevant cost information to remain competitive within their business environment (CIMA, 2008). ABC is one of the management accounting systems that aligns strategy and structure for competitive advantage (Chandler, 1990). Intensified competition is a significant driver in the decision to adopt ABC (Velmurugan, 2010). In their findings, Al-zu'bi and Khamees (2014) concluded that applying the ABC systems would decrease cost by more than what can be attained by TC.

Mishra and Vaysman (2001), however, urged that an ABC system supports self-serving managers to be detrimental to the organisations. They further outlined that, although ABC success findings are available, adopters of ABC have little to show. Despite ABC's perceived benefits, there is evidence of a low rate of adopters (Innes, Mitchell & Sinclair, 2000; Velmurugan, 2010).

As observed by Horngren (2004), it depends on the manager's perception regarding the expected benefits versus the related costs. The criteria for choosing between two systems will be guided by the cost-benefit analysis. One of the main factors for non-adoption of ABC has been its perceived administrative and technical complexities, as emphasised by Velmurugan (2010) and reinforced by Gervais, Levant and Ducrocq (2010).

Because of the problem outlined in this research study, it is necessary to trace costs to services so that accurate costing is determined and suitable strategic decisions can be made regarding the delivery of quality services. There are two types of costs involved in the process, namely, direct and indirect costs. Direct costs can be appropriately and economically traced directly to a cost or a cost object such as products or services (Blocher, Chen & Cokins, 2005). Specific credentials with the product line are likely through material issue data in relation to direct material and time sheets analysis in terms of direct labour (Innes et al., 2000). On the contrary, indirect costs, also known as overhead costs, pose challenges when attempting to trace costs to cost objects.

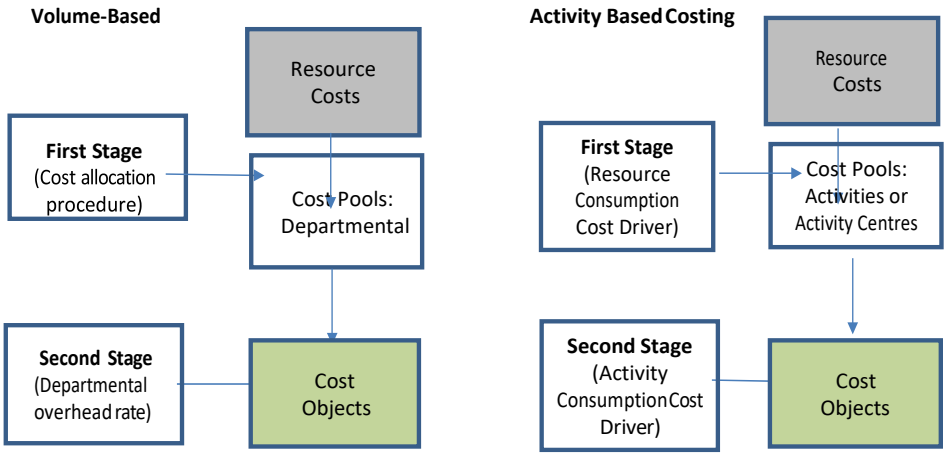

Figure 2.3: Two-Stage Cost Assignment Procedure

Source: Adapted from Blocher et al. 2005

Figure 2.3 illustrates how the overhead costs are assigned using the TC (Blocher et al., 2005). Drury (2007) outlined how cost drivers, such as direct labour hours, are applied irrespective of the influence regarding the product or services. Consequently, distortion of service cost is likely to happen and more so when the overhead cost portion is substantial (Blocher et al., 2005). In contrast, ABC applies resources to activities, connecting activity cost to services.

Indirect costs signify the acquired resources whose use cannot be definitely connected to distinct products since they are common to more than one product or service and it is impractical to create a system to monitor their use (Innes et al., 2000). Both systems of costing, namely, TC and ABC, apply direct costs the same way. TC systems, however, apply broadly averaged overhead rates to assign costs according to the

notion that the products or services drive the costs directly (CIMA, 2008).

2.5.1 The major advantages of activity-based costing

The simplicity of ABC is that the costs for each process are recognised, the cost drivers are separated and the cost driver rate is calculated (Jeyaraj, 2015). ABC demonstrates the effect of variances in activities and the changes in services on costs and some of its major advantages are illustrated below (Blocher et al., 2005; Innes et al. 2000). Reported benefits can be summarised as outlined in previous research (Kaplan & Anderson, 2003, 2007; IMA, 2006; Sartorius et al., 2007):

- ABC provides accurate costing information of products and services.
- ABC creates a conducive environment for better insight regarding overheads and its drivers.
- ABC makes costly and non-value-adding activities more visible, allowing managers to focus on these areas in order to reduce or eliminate them.
- ABC provides a complementary element to other management techniques such as continuous improvement, scorecards and performance management.
- ABC provides valuable information to recognise areas where process enhancement is required.

2.5.2 Shortcomings of activity-based costing

Many organisations find it difficult to implement ABC due to the enormous cost of maintaining and updating the model (Kaplan & Anderson, 2003; Stouthuysen et al., 2014; Velmurugan, 2010). Despite reports that half of the UK and US public sector organisations have adopted ABC, the model is costly and requires frequent updates and, eventually, demands more time and resources (Mullins & Zorn 1999). Due to rising costs and poor management commitment, most public agencies have abandoned ABC (Arnaboldi & Lapsley, 2003). This created considerable debate about its usefulness, as suggested by Velmurugan (2010). In the South African context, public sector ABC adoption is relatively unknown (Oseifuah, 2014). Some reported drawbacks of ABC, as elaborated in CIMA (2008), are listed below:

- The complexity of ABC and the cumbersomeness of collecting data about activities is a concern.

- ABC attracts very high costs in implementation and maintenance.

- The difficulty experienced in allocating certain or specific overhead costs to services.

- These costs still have to be arbitrarily applied to services and customers.

The challenges of ABC, as indicated above, did not, however, prevent some organisations from adopting the model and reporting satisfaction with the value derived (Stratton et al., 2009). The number of ABC adopters are more prevalent in developed countries than in South Africa and, particularly, within the private sector. The solution, according to Kaplan and Anderson (2003, 2007), was not to abandon the model but to improve it. This was followed by the extension of conventional ABC to TDABC to address some of the challenges as reported above.

2.5.3 Comparative analysis of the traditional costing and activity-based costing systems

ABC is an enlargement of the two-stage procedure of the modern cost systems where it separates the organisation's resource costs by activities and then uses drivers to assign those expenses to activities (Cooper & Kaplan, 1988). TC systems misapply the overhead costs, whereas ABC assigns costs by applying resource and activity drivers that disclose activities' and objects' consumption outlines based on the cause-and-effect relationship (CIMA, 2008).

Table 2.1 exhibits a summary of the main differences between ABC and TC, including cost pools, allocation base, hierarchy of costs, cost objects, decision support, cost control and the cost to operate these two systems. While it is important to note that the basis of allocating costs using ABC is accurate, traditional methods depends on the volumes in determining costs of goods or services. The high cost of implementing ABC mostly becomes a barrier in making a decision about adoption.

Table 2.1: Difference between ABC and Traditional Costing

	ABC Costing	**Traditional Costing**
Cost Pools	ABC systems accumulate costs into *activity* cost pools. These are designed to correspond with the major activities or business processes. By design, the costs in each cost pool are largely caused by a single factor – the *cost driver.*	Traditional costing systems accumulate costs into facility-wide or departmental cost pools. The costs in each cost pool are heterogeneous – they are costs of many major processes and generally are not caused by a single factor.
Allocation Bases	ABC systems allocate costs to products, services and other cost objects from the activity cost pools using allocation bases corresponding with cost drivers of activity costs.	Traditional systems allocate costs to products using volume-based allocation bases: units; direct labour input; machine hours; and revenue dollars.
Hierarchy of Costs	Allows for non-linearity of costs within the organisation by explicitly recognising that some costs are not caused by the number of units produced.	Generally, TC estimates all of the costs of an organisation as being driven by the volume of products or services delivered.
Cost Objects	Focuses on estimating the costs of many cost objects of interest: units; batches; product lines; business processes; customers; and suppliers.	Focuses on estimating the cost of a single cost object – unit of product or service.
Decision Support	Because of the ability to align allocation bases with cost drivers, it provides more accurate information to support managerial decisions.	The inability to align allocation bases with cost drivers, leads to *over-costing* and *under-costing* problems.
Cost Control	By providing summary costs of organisational activities, ABC allows for prioritisation of cost management efforts.	Cost control is viewed as a departmental exercise rather than a cross-functional effort.
Cost	Relatively expensive to implement and maintain.	Inexpensive to implement and maintain.

Source: Granof et al. (2000)

2.5.4 Alignment to activity-based management techniques for decision-making

ABC is at the core of the broader management perspective referred to as ABM, which according to Brown et al. (1991), aligns planning, budgeting and management decisions. ABC analysis enables organisations to gain insight into their business processes that management could apply in order to make better decisions (CIMA, 2008).

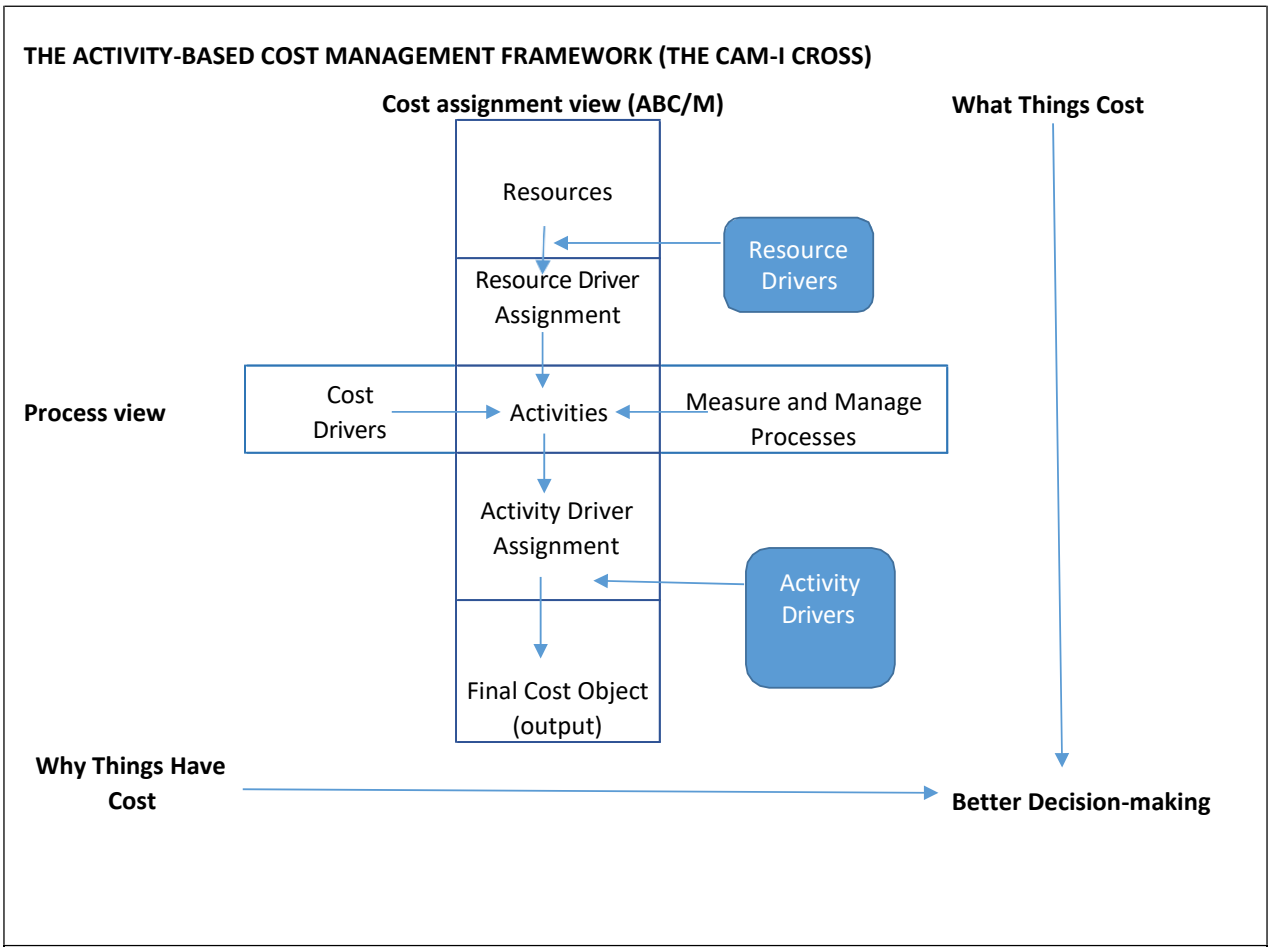

Figure 2.4: The Activity-based Cost Management Framework

Source: Adapted from CAM-1

As depicted in figure 2.4 above, ABM serves as a calculation engine that transforms resources into outputs. The activities are the techniques that produce and deliver the outputs. The work is foundational; all organisations carry out work activities or purchase resources. All work has an output. The topic of outputs is a critical aspect of ABM. The cost assignment view converts the expenses of resources (e.g., salaries, stationery) into the costs of the work activities and, eventually, into the final cost objects (e.g., services, customers).

The process view categorises the work activities in time and adds the build-up of activity costs from the beginning to the end of a business process.

2.5.5 Foundation of performance management

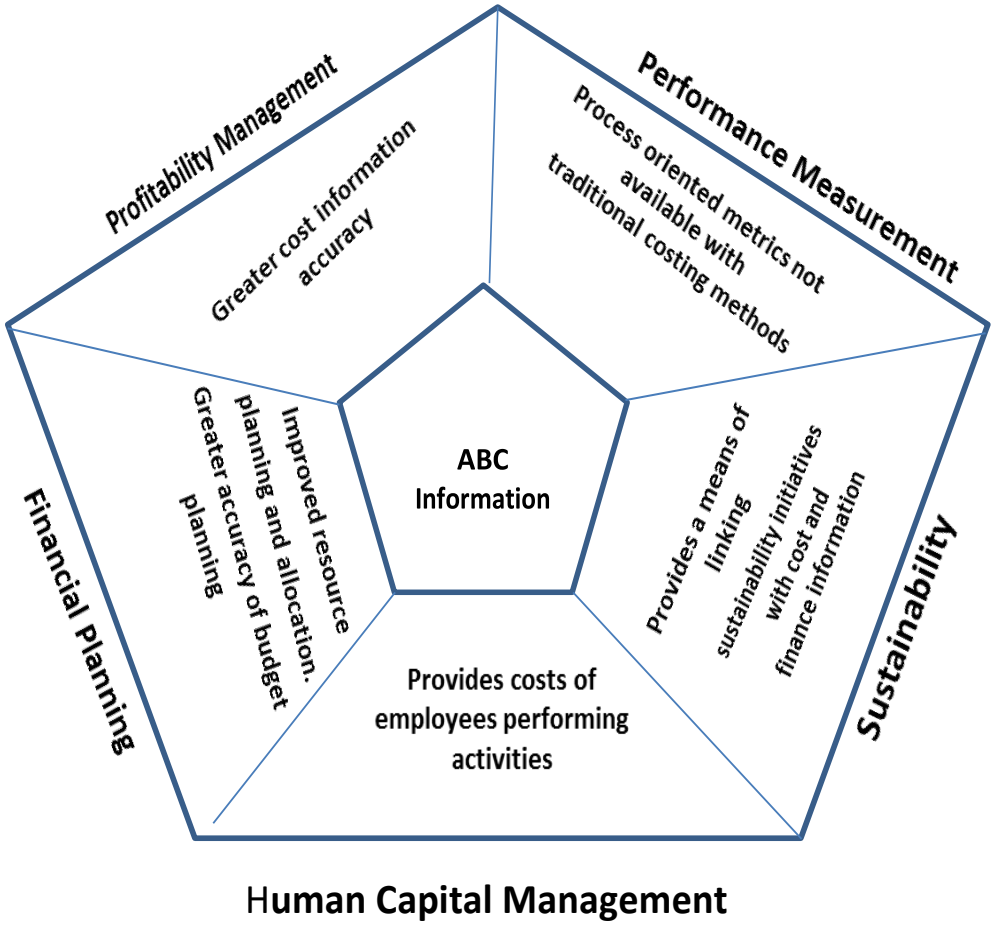

Figure 2.5: Foundation of Performance Management

Source: Turney (2008)

Figure 2.5 illustrates how ABC could be integrated as a performance management instrument, as highlighted by Turney (2008). The following is a summary of the elements as depicted above:

Performance measurement: When ABC is integrated with performance management, it becomes a significant source of performance instruments.

Financial planning: ABC provides a conducive environment to enable the budgeting process and long-term planning that are aligned with the strategic goals and consistent with the relationship between goal accomplishment and resource strength.

Human Capital Management: The concept of mean management for both private and public sector organisations could support them to be more efficient by using less people, but retention becomes a challenge.

Sustainability: Improvement of sustainability initiatives becomes crucial in many organisations today.

2.5.6 Linking activity-based budgeting approach for better budgeting

The ABB approach emphasises allocating a budget from an activity-based model of the organisation, as opposed to a cost centre or departmental focus (Sandison, Hansen & Torok, 2003). The closed-loop model is fundamental to ABB, as shown in Figure 2.6.

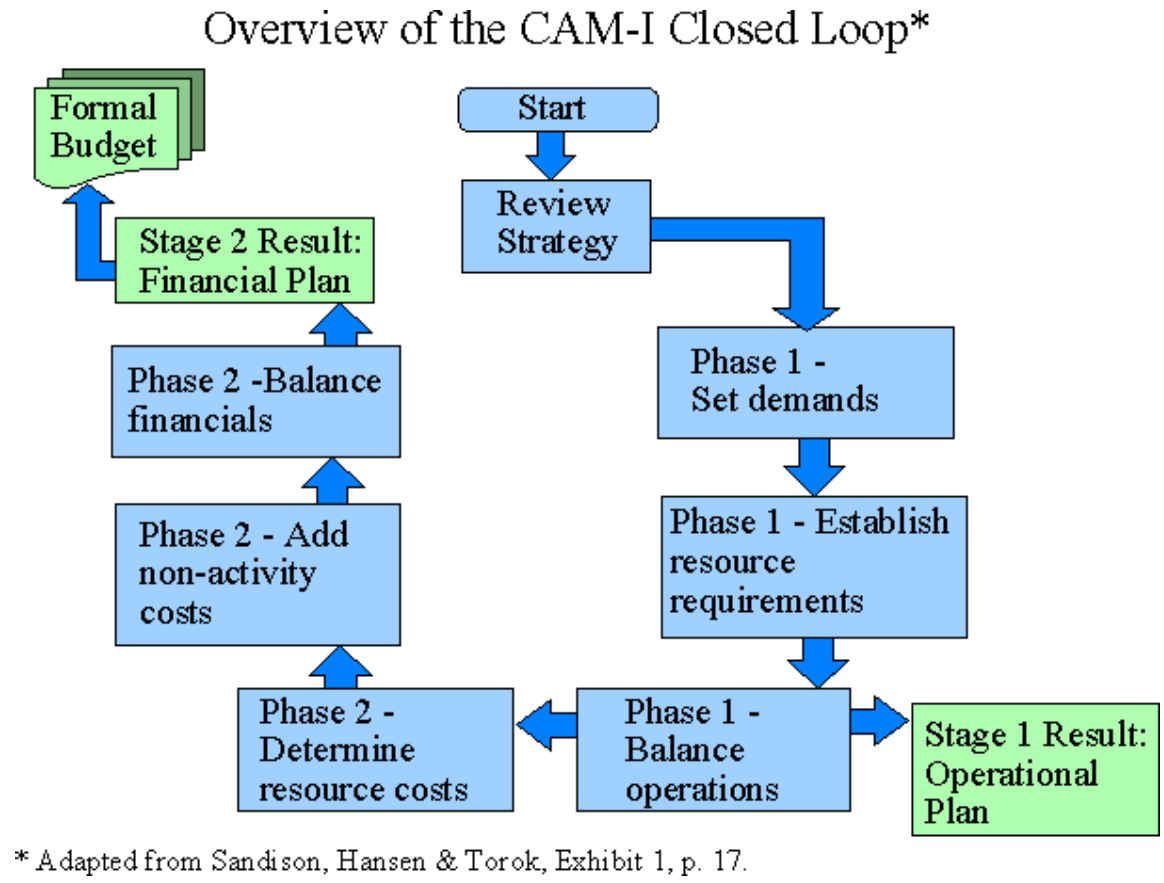

Figure 2.6: Overview of CAM-I

The investigation by Sandison et al. (2003) revealed that the major advantage of this model for budgeting and planning promotes flexibility and aligns performance management with accountability. The two-phase approach is summarised below.

Phase 1:

- Identify a strategy that reflects the aspirations of the organisation.
- Identify the demand, constraints, resources, drivers and outputs required for the particular operational process.
- An operational plan is then derived from that strategy.

Phase 2:

- Formulate a financial plan that relates to the operational set to achieve the projected financial set.
- Determine the cost of resources, then link these costs to the activity costs.
- Derive the product costs from the cost of activity.

On the other hand, Horngren et al. (2012) defined a traditional budget as a quantitative meaning of management's projected plan of action for an identified period and outlined what should be done to achieve that plan. Traditional budgeting methods have drawn some high levels of criticism, as outlined in previous research. Fraser and Hope (2003) argued that traditional budgeting should be abandoned, while Dugdale and Lyne (2017) further identified weaknesses such as inflexible planning, incremental philosophy, cumbersomeness and ignorance of key drivers.

As shown in Figure 2.6, budgets were used as the control mechanism and, therefore, played a significant role in channelling the direction of the organisation. The budgeting process is aligned to the traditional top-down approach and refers to the command and control model. All the decisions, resources and rewards flow from the top to the bottom. Line management are required to be compliant with the rules already set by top management.

2.5.7 The traditional control processes

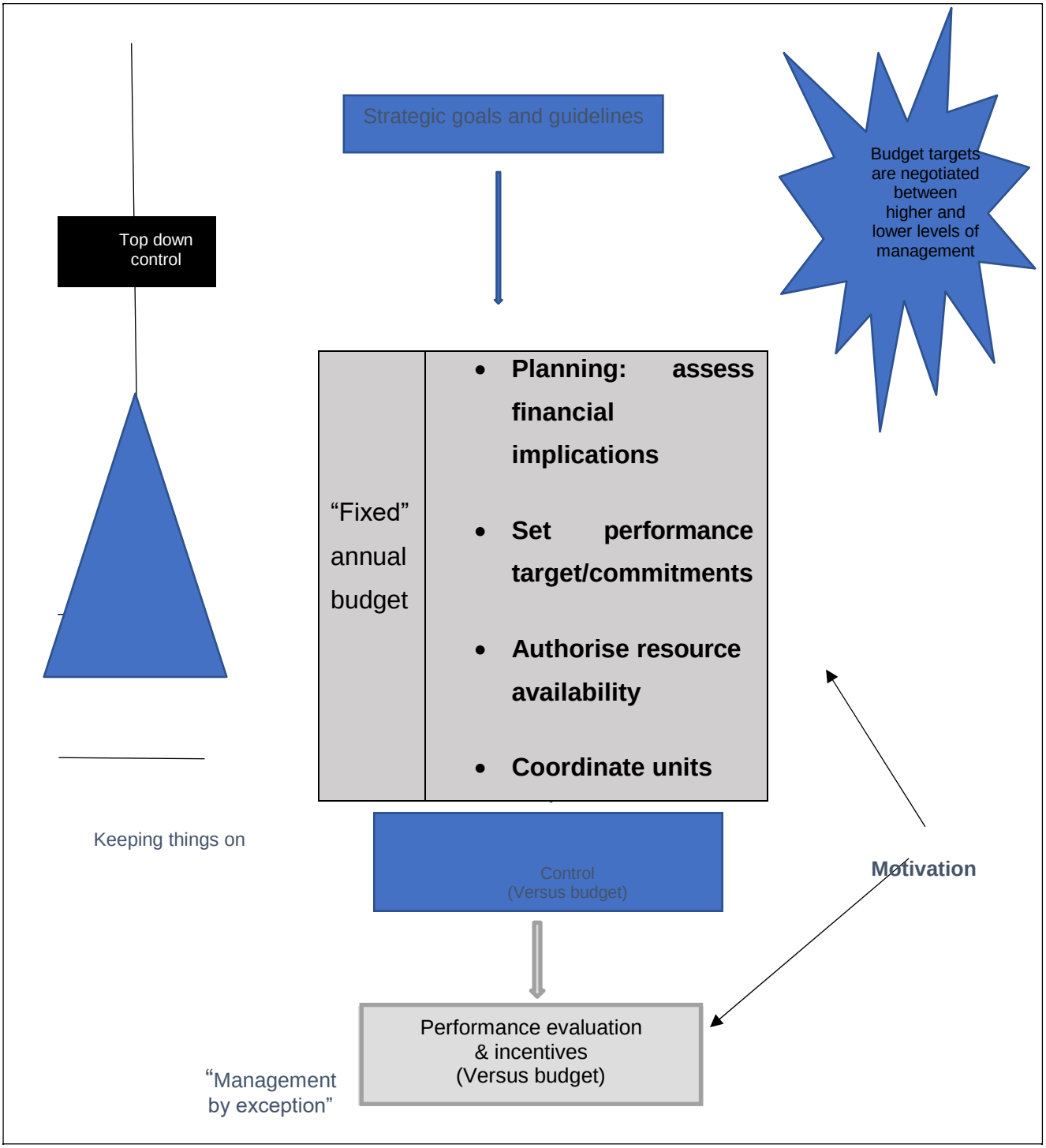

Figure 2.7: The Traditional Control Process

Source: CMA Management 2003

The seminal study by Beyond Budgeting Roundtable (BBRT) investigated the traditional budgeting case and emphasised that organisations must be flexible and

responsive regarding the ever-changing environment within which they operate (CMA, 2003).

2.6 FRAMEWORK FOR SUCCESSFUL IMPLEMENTATION O F ACTIVITY-BASED COSTING

Arnaboldi and Lapsley (2003) examined the implementation of ABC in the context of the UK government modernisation approaches. Their findings noted the lengthy process of ABC introduction and implementation, which is attributed to typical features of governmental backgrounds. Vazakidis, Karagiannis and Tsialta (2010) proposed that their research could be used as a pilot in the implementation of ABC within the public sector. Their study, therefore, sets a crucial benchmark for further research in this area within the public sector.

Sartorius et al.'s (2007) research revealed that the degree of ABC implementation in South Africa is lesser than that found in developed countries; however, the shortcomings concerning implementation are comparable to those in many other countries. The studies by Rundora et al. (2013) and Rundora and Selesho (2014) outlined that substantial benefits were resulting from the implementation of ABC by large firms. Its recognition by small firms have, however, introduced some doubts among its non-users. Their studies provide South African companies with a comparative framework of vital factors to consider in implementing ABC.

Brown and Myring (1999) stated that the public sector is increasingly interested in ABC adoption. From a South African public sector perspective, an investigation by Oseifuah (2014) found that the implementation of ABC in municipalities has not been explored. The results of this investigation depict an obstacle: it is difficult to explain the implementation of ABC in Scottish local authorities.

2.6.1 Steps in the implementation of activity-based costing

When considering implementing ABC, basic steps should be followed subject to the available technological platform to be used. Studies by Norkiewicz (1994) and Velmurugan (2010) outlined the nine-step implementation process as follows:

(a) Identify and assess ABC needs

- Conduct a needs assessment to determine the viability of the implementation of ABC in the organisation.
- Determine the accuracy of the existing costing system.
- If the system is erroneous, identify affected decisions made by management.
- Determine whether managers are attentive of the problems formed by their existing cost system.
- If the problems are significant to warrant the correction of the system, determine the key business aspects and concerns and the kind of information to generate.

(b) Training requirements

- Begin by creating awareness about potential problems with the existing costing system.
- Formal training sessions could be organised for managers.
- Introductory training in key ABC elements is often valuable for all employees, particularly in preparing for implementation.
- Provide training for a pilot-based approach for the project team assigned to the project.
- Continuous module training linked to the results of the analysis is key.

(c) Define the project scope

- Evaluate project requirements taking into consideration the time and available resources.
- Set the mission and objectives of the project team.
- Determine the cost centres and service elements to be included in the project.

- Determine the desired project schedule and cost elements to be included or excluded.

(d) Identify activities and drivers

- Interview managers and supervisors or any other interested employees.
- Design process maps with additional information including activities, time frames and resources.
- Identify drivers applying the cost breakdown technique based on general ledger analysis.
- Define the triggers of an activity or process and make a valuation regarding their application.

(e) Create a cost and operational flow diagram

- Construct a flowchart diagram indicating the cost and operational flow reflecting the use of resources.
- Show the step-by-step process on activities and the production of goods and services.
- Design draft ABC model diagrams.
- This also identifies how general ledger line items should be assigned in the model.

(f) Collect data

- Collect data where connection exists between cost and operational flow diagram.
- The data must include the effort of people and machines, reflected in units of time.
- Measure activity driver rate to determine frequency of activity.

(g) Build, validate and reconcile a software model

- Capture data and its connections to determine costs of drivers, activities, processes, products and services, including unused capacity.
- Data may comprise activity qualities, such as pointers for unit handling time.
- Analysis of quality, for example, allows the organisation to scrutinise cost of quality.
- It is crucial to confirm that all the data have been accurately captured and that no variances exist between the model and the general ledger.

(h) Interpret results and prepare management reports

- A crucial step in the process is the understanding of outcomes and formulating management reports.
- The project team must invest sufficient time studying the result of the analysis to recognise all major management issues.
- Preliminary project objectives must be resolved using customer or services reports as well as the costs of processes.
- The project team will often notice unforeseen benefits.
- Presentations to managers and other individuals should be carefully controlled to avoid any controversy arising from the sharing of information.

(i) Integrate data collection and reporting

- The preliminary ABC pilot project should be followed by integration of data gathering and reporting.
- Develop and implement ABB with actual reporting assessments.
- Systems integration can be manual o r through automated database relationships or a combination of both.

- It is highly recommended to integrate the general ledger into ABC as data need to be transferred.
- Automation for capturing other data features depend on existing systems.

- A model such as a Management Information System (MIS) must be created to provide feedback to the functional ABC project team.

As illustrated by the Institute of Management Accountants (IMA, 2006), before deciding on the implementation of an ABC system, a cost-benefit analysis must reveal a convincing intention to improve the existing cost system.

2.7 FACTORS TO BE CONSIDERED WHEN IMPLEMENTING ABC

Several organisations that implemented ABC have experienced challenges, as outlined by Kaplan and Anderson (2007) and supported by Stratton et al. (2009) and Velmurugan (2010). Among the reasons cited was the inadequacy of focus on human behavioural aspects and the architectural and software design of ABC. Special attention, therefore, is required regarding the behavioural and organisational factors discussed below, as suggested by Velmurugan (2010).

2.7.1 Top management support and change management

According to IMA (2006), the change in the management process should resolve the sceptical concerns that people have towards the adoption of the new costing system. While garnering management support, ensure that the people who will be the users of the ABC information are represented on the implementation team (CIMA, 2001). An investigation by Velmurugan (2010) revealed that education assists those responsible for the change-over to discover and express the technical qualities of the new proposal. They suggested including a highly respected manager to champion the initiative, which could yield significant results that would improve the chances of ABC implementation success.

2.7.2 Sufficient internal resources

Al-Sayed, Abdel-Kader and Kholeif (2008) hinted that 11% of all ABC users applied a specially made in-house software package for ABC analysis. Other platforms include an ERP system, which is an integrated database connecting various modules and

which provides information resource sharing (Huijuan, Yugian & Guoping, 2011). They contended that a devoted ABC module in an existing ERP system could be efficient.

2.7.3 Training in designing, implementing and using the system

Velmurugan (2010) hinted that training might contribute towards eliminating the resistance against ABC. It is, therefore, possible that positive attitudes of users might affect the successful implementation of ABC. The importance of providing adequate training to the ABC team in cost system designs, as articulated by Anderson et al. (2002), has the potential to successfully implement the ABC system.

2.8 MOVING FROM ACTIVITY-BASED COSTING TO TIME-DRIVEN ACTIVITY-BASED COSTING

Conventional ABC was presented in the mid-1980s through several scholars' studies and articles (Cooper, 1988; Cooper & Kaplan, 1988). In an attempt to overcome the challenges highlighted in ABC, Kaplan and Anderson (2003, 2007) proposed TDABC, which is perceived to be simpler and faster to implement.

TDABC requires estimates of only two parameters: (1) the unit cost of supplying capacity and (2) the time required to perform a transaction or an activity.

A time-driven ABC model (Kaplan & Anderson, 2007) has the following qualities:

- it can be easily projected and instantly installed;
- it is simpler to update and reveal changes in processes, variation of order and resource costs;
- the model is conducive for data to be systematically delivered from ERP and CRM systems;
- unit times estimates can be authenticated by direct observation;
- the model can handle significant number of transactions with ease, can maintain swift processing times and data is immediately available; and
- it clearly integrates resource capacity and reflects unused resource capacity for

management action.

In his seminal work, Kee (2012) demonstrated how TDABC could be used in the public sector to measure the cost of goods and services. He further emphasised how the model could provide valuable and relevant costing information to arrive at better resource allocation decisions. This was supported with empirical evidence produced by Stouthuysen et al. (2014) on how TDABC can help managers in the public sector to create improved efficiencies in the rendering of services.

2.9 OTHER PERSPECTIVES RELATED TO ACTIVITY-BASED COSTING

The Theory of Constraints (TOC), which is a method that emphasises detecting and correcting bottlenecking of the process, could be used as a management tool (Al-Zu'bi & Khamees, 2014). Nonetheless, regardless of the technical glitches of ABC and TOC implementation, the combination of TOC and ABC is still a significant part for future research (Ifandoudas & Gurd, 2010).

McCormick (2009) supported a more inclusive approach to cost reduction that is centred on the overall strategy and noted that under difficult economic realities, for example, recessions leading to slow economic growth, organisations resorted to the cutting of costs indiscriminately. This method of containing costs could lead to cutting costs where there is no need. A better understanding of what drives the cost gives an insight to wastage.

In a study by Birnberg (2009), it was found that the central thrust of management accounting education and research could be referred to control in the bigger picture of the term, but also to the activities included in planning. As urged by Maiga and Jacobs (2006), ABC has the ability to provide management with the resources to restructure business activities, detect glitches, reduce wastage and increase efficiencies.

This critical question must be answered, as Phillips (2011:1) asked: "If you implement ABC, will it save you as much as you're spending?". There are successes and failures, according to literature, but what is important are the lessons learned. The trend in literature is the emphasis on top management support in the initiative for the adoption of ABC, and a clear alignment to strategy and how this relates to the public sector must be investigated.

2.10 SUMMARY

Based on available research, past and present as articulated above, one thing is clear: the allocation of overheads using the TC method poses challenges. The assumption that all the services and products consume the same resources by using averages results in the distortion of cost. It was noted that both systems treat direct costs similarly. Accordingly, ABC realises that activities drive costs; however, TC systems regard volumes as an important factor in determining costs. The use of ABB with ABC could contribute to monitoring activity costs by analysing actual activity costs with budgeted or projections and, in turn, will allow for continuous improvement mechanisms such as ABM.

CHAPTER THREE

FRAMEWORK FOR SOCIAL SECURITY ASSISTANCE AT SASSA

3.1 INTRODUCTION

The preceding chapter reviewed literature relevant to this study. This chapter begins by giving a background overview of the evolvement of South African social security reforms after the democratic dispensation. Legislative framework and policies that govern the delivery of social assistance will also be provided. This includes brief discussions about the Constitution of the Republic of South Africa relating to social assistance, the Social Assistance Act, the PFMA and the SASSA organisational structure, which outlines the different roles as well as the grant application process. The perspective analysis of social security systems in other parts of Africa is briefly illustrated.

The chapter also seeks to answer the secondary objectives, which are to investigate SASSA's current TC method and the applicability of implementing ABC in the public sector, specifically in SASSA and its effectiveness. To achieve this goal, existing literature on the implementation of ABC within the public sector will be reviewed. An overview of the South African Social Security perspective to provide the role of the Department of Social Development (DSD) and their links to the administrative cost of social security assistance in SASSA are also given.

The constitutional mandate of the DSD and how it relates to SASSA in discharging its social security responsibility is discussed in detail. A brief explanation follows of the social grant types, which are the products that SASSA offers to beneficiaries. The means test that is applied to determine the eligibility of applicants of various social grants is also discussed. A statistical analysis of grant beneficiaries' growth over a period is then discussed. A brief overview of the administrative expenditure and projections relating to social grants are outlined.

The administrative expenditure is then discussed as one of the main cost drivers in the delivery of social grants and how it is managed. This is linked to the introduction of the initiative process for consideration on ABC implementation. Lastly, a case study comprising a discussion that further outlines the differences in calculating the administrative cost per social grant using TC, ABC and TDABC, is presented.

3.2 SOCIAL SECURITY LEGAL FRAMEWORK IN SOUTH AFRICA

SASSA's existence is based on the provision from the Constitution of the Republic of South Africa, 1996 (Act No.108 of 1996). Section 27(1) (c) of the Constitution states that "everyone has the right to have access to appropriate social assistance, including if they are unable to support themselves and their dependents." This is a human right that must be protected at all times. The Social Assistance Act (2004) places the responsibility of managing social security grants on national government. The DSD plays a political role by developing social assistance policies within which SASSA must comply.

SASSA is tasked with the responsibility of ensuring that policies, programmes and procedures are implemented effectively and efficiently in the administration of social assistance grants. The White Paper on Social Development outlines the objectives for South Africa's social security. The Paper highlighted that the sustainability of economic development requires a comprehensive social security mechanism to drive the developmental regime. It is regarded as an appropriate vehicle that will drive poverty alleviation through the redistribution programme.

The establishment of SASSA in 2005 ensured that all social grants are administered nationally. This is against the background that, previously, all nine provinces were responsible for this function under the Social Assistance Act No. 59 of 1992. The priority for SASSA was to improve service delivery mechanisms by unlocking blockages that existed regarding access to social grants to poor people. South Africa has, over the years, established a comprehensive social security system that benefits many people.

The distribution of social grants was outsourced to private entities, while SASSA will enhance the internal structure in order to have the required skills and technology to take over this responsibility in the medium to long-term. The ultimate goal for SASSA will be to build the capacity from within in order to fulfil the mandate. To make this a reality will require proper research in finding the appropriate systems and mechanism, and this, takes time. In the recent past, the function was performed by the disputed contract awarded to Cash Paymaster Services (CPS) which expired, but was extended by the intervention of the Constitutional Court.

Currently, the South African Post Office (SAPO) has been contracted to disburse social grants to the beneficiaries on behalf of SASSA.

3.2.1 The evolution of social security aspects in South Africa

A social pension scheme was introduced in South Africa in the late 1920s for the sole purpose of protecting the white minority population against poverty in old age (Niño-Zarazúa, Barrientos, Hulme & Hickey, 2010; Pauw & Ncube, 2007). Eligibility was extended to the other groups in the late 1940s; however, this was a biased and discriminatory format. When apartheid was abolished, the Older Persons Grant was stretched to cover all the groups who qualify as per the means test (Neves et al., 2009). During the transitional period in 1994, the South African social security system was arguably advanced in comparison with other developing countries (Case & Deaton 1996; Van Der Berg, Siebrits & Lekezwa, 2010.

In the past, the welfare system was administered by fourteen departments for the different population groups and homelands. That system created a source of fragmentation, duplication and inefficiencies in the delivery of social grants to poor people. This was the system where each provincial social department had payment contracts that differed.

The Taylor Committee of Inquiry was, therefore, established to review some elements of social security with the view towards the development of comprehensive social security for South Africa. Their report influenced the direction in which the social security system is heading. This led to the centralisation of social assistance and the establishment of SASSA in the form of legislation in 2004. The Committee played a role in the extension of the grant for children to continue receiving CSG until the age of 18 years.

The Social Assistance Act of 2004 was introduced to replace the Social Assistance Act of 1992. This was done to consolidate legislation and the administration of social assistance. A comprehensive and integrated social security policy was required to give effect to the constitutional right to social security. This led to the realisation of reform to the social security system by creating SASSA. The DSD, as the department that monitors SASSA's activities, provides leadership through the policy frameworks and setting of targets.

3.3 SASSA'S ORGANISATIONAL STRUCTURE

SASSA is mandated by legislation to administer social assistance to poor and marginalised beneficiaries. The social assistance programme provides cash transfers to different types of beneficiaries, which include older persons, people with disabilities and children as well as social relief of distress to individuals. This programme is regarded as the leading cash incentive against hardship and inequality and promotes social and financial inclusion. This mechanism is crucial for the instant relief of hunger caused by poverty and is an appropriate vehicle for active redistribution. SASSA's budget structure comprises two programmes, namely, a) administration, which comprises "executive management, internal audit and risk management, corporate services, financial management, ICT, and strategy and business development, and b) benefits administration and support, comprises grant operations and policy implementation". The two programmes are depicted in Figure 3.1.

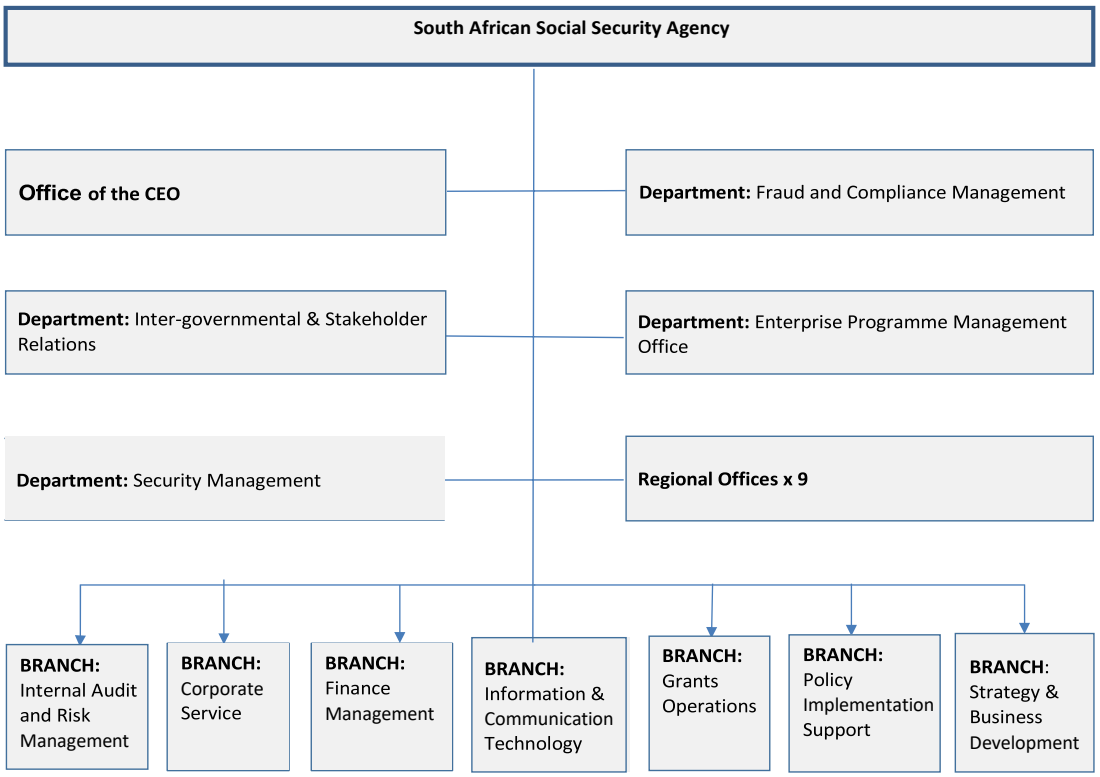

Figure 3.1: SASSA Organisational Structure

Source: SASSA Annual Report 2017/18

3.3.1 Programme 1: Administration

As illustrated in the 2017/18 annual report, the administration programme provides leadership as well as management and support services, which include the following sub-programmes:

Executive management: The CEO as the head of the institution is allocated to this sub-programme and the office consists of other related support functions, which also include fraud and compliance management, communication and legal services.

Internal audit and risk management: This function is led by an executive manager who reports to the CEO; this sub-programme is tasked with the provision of internal audit assurance and risk management services for the Agency.

Corporate services: This sub-programme is tasked with the responsibility for rendering corporate support services for the Agency. It consists of the following: human capital management; facilities management; security services; and auxiliary support services. This sub-programme is also responsible for the sourcing of office accommodation, its maintenance, administration of leases and cleaning services.

Financial management: This sub-programme is led by the CFO and is tasked with the financial management of the Agency, which encompasses the preparation of financial plans and monitors budgets and expenditure. The function also includes the management of the accounting and procurement system.

Information and communication technology: The head of this sub-programme is the CIO who is tasked with ensuring the development and maintenance of ICT systems to provide support to key business processes and the deployment of ICT-related solutions.

Strategy and business development: Led by an executive manager tasked with the responsibility for sound and prudent planning and for improving operational efficiency and consolidating the implementation of policies by monitoring, evaluating and developing new initiatives.

3.3.2 Programme 2: Benefits administration and support

The programme is led by an executive manager who is tasked with providing grant administrative services efficiently and effectively in order to ensure the implementation of the social protection framework. The programme must ensure that proper systems are put in place in order to deliver the full function of grant administration from application to approval. Part of its role is monitoring and evaluation in order to ensure continuous improvements and to promote innovations. It is the role of the head of this programme to lead and give strategic direction and offer guidance and support to the entire grant administrative team.

The programme, furthermore, provides payment contract and management services; this unit is responsible for formulating grant estimates to secure sufficient funding to beneficiaries. The disability management division is the unit tasked with ensuring that medical doctors are sourced to perform medical assessments as part of the process to determine the eligibility of applicants. The policy implementation support division is responsible for the development of grant administrative processes and procedures, the provision of training and the management of business systems. The programme also ensures that the paypoint infrastructure is developed.

The role of the customer care unit is to ensure that clients' enquiries regarding SASSA products are addressed, including promoting a customer-centred service. It further ensures the positioning of interventions to ensure access to services by clients, particularly in the most rural parts of the country. This will also support the flow of information to SASSA's stakeholders across the spectrum, which includes both internal and external stakeholders, such as the SAPO, the DSD and Parliament. SASSA services were brought closer to the people throughout the country in the form of regional offices, district offices, local offices, service points and paypoints.

Since the core function of SASSA is to administer social grants, it is, therefore, the responsibility of this programme to ensure the successful implementation of the full value chain of grant administration. Its roles and functions are inter-linked across all levels within the agency, including daily operations and interacting with clients. The success of implementing the mandate of SASSA depends on the support of the other programmes.

3.4 CLASSIFICATION OF SOCIAL GRANTS

SASSA administrates seven long-term social grant products that are classified as follows: old-age grant; disability grant; war veterans grant; foster child grant; care dependency grant; child support grant; grant-in-aid and the social relief of distress grant. A short description of the types of grants and a brief explanation of the qualifying criteria are provided below:

3.4.1 Old-age grant

The old-age grant is for persons over 60 years. In the past, the criteria to qualify for the grant for men was 65 years of age or older. while the criteria for women was 60 years of age. Currently, both men and women aged 60 and older qualify.

3.4.2 Disability grant

The disability grant is meant for persons who are incapable of working due to physical impairment. The criteria to qualify for this grant type are that the person must be between the age of 18 and 59 years. A doctor's medical assessment report no older than three months, is required. In addition, recipients of this grant are not permitted to receive another form of social grant.

3.4.3 War veterans grant

The war veterans grant is for persons who participated in the Second World War or the Korean War and who are disabled or older than 60 years.

3.4.4 Foster child grant

The foster child grant is paid to the foster carer on behalf of a child who must be under the age of 18 years. A court order appointing the foster carer for the child must be provided.

3.4.5 Care dependency grant

The care dependency grant is paid to the main caregiver of a child with a permanent, severe disability. The other requirement is a doctor's medical assessment report of the child for whom the grant is being applied.

3.4.6 Child support grant

The child support grant is given to the primary caregiver of a child 18 years or younger and, in order to qualify, the child must not be cared for in a state institution.

3.4.7 Grant-in-aid

The grant-in-aid is for persons who are receive the old-age grant, disability grant or war veterans grant and who need permanent care because they are unable to take care of themselves due to physical or mental incapacity.

3.4.8 Social relief of distress grant

The social relief of distress grant is a grant given to persons in terrible need on a temporary basis. Circumstances under which this grant may be granted include persons whose social grants were approved, but payment has not yet been effected, or persons affected by a disaster, such as fire or severe flooding. This type of grant may be awarded for a period of not more than three months; however, it may be extended under exceptional circumstances.

3.5 SASSA GRANT APPLICATION PROCESSES AND SYSTEMS

The application process and the payment of grants has been the responsibility of SASSA since its establishment in 2006. Applications must be submitted in SASSA offices by qualifying individuals and after an assessment the outcome of the application is given. SOCPEN is the application system used to capture and process applications; an award letter to confirm approval of a grant is given to the beneficiary.

3.5.1 Requirements for applying for a social grant

In line with the South African constitution, citizens have a constitutional right to social security. Social grants are now received by approximately 17 million clients who meet the criteria. Any applicant who wishes to apply for a grant must ensure that supporting documents required for any social grant are provided for consideration. Applications can be made at the nearest SASSA office by the applicant or someone on his/her behalf if the person is too old or sick and unable to travel to the SASSA office. Upon successful application, the applicant is notified in writing and the payment of the grant will then commence.

Unsuccessful grant applicants are also informed in writing indicating the reasons for declining the application as well as the right to request an appeal within 90 days of notification.

3.5.2 Key activities for the grant application process

As depicted in Figure 3.2, the key activities as categorised as follows:

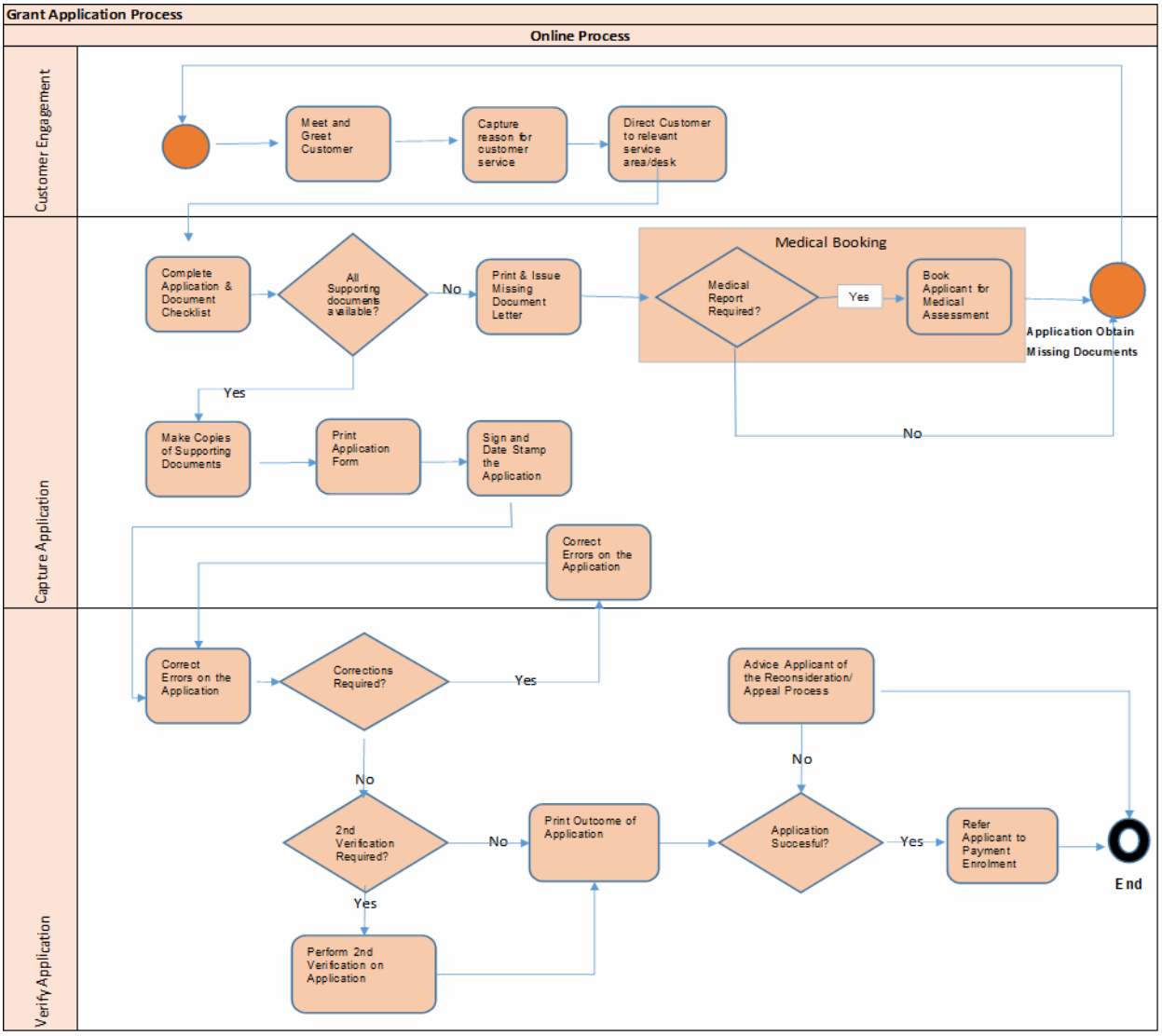

Figure 3.2: Grant Application Process

Source: Grant Application Process & Cluster Foster Care Scheme Version 1.1

(i) Customer engagement

At SASSA offices, a client is greeted, the details are captured on the intake register and then directed to the correct service queue. If the client is in SASSA purely to

change details such as an address or to make an enquiry, then he/she will be directed to the express queue so that the time spent waiting is greatly reduced.

(ii) Capture application

An employee will be responsible for completing the entire application. In cases where a client does not have all the required documents, the employee will provide the client with a list of missing documents. Where a client has all the required documents, the employee will complete the application and submit it for verification.

(iii) Verify application

An employee will be responsible for verifying the entire application by ensuring that all critical fields are captured correctly. The outcome of the application will be given to the client at this point. Where the outcome is unfavourable, the client will be advised accordingly and those who have been approved will be referred to the payment enrolment.

SASSA conducts its business using information technology (IT) as a resource. The following systems are currently in usey: 1) Basic Accounting System (BAS) operating as a cash basis of accounting and is mainly used for social relief of distress (SRD) transactions; 2) ERP (Oracle) is the main financial system that incorporates human capital management (HCM), supply chain management (SCM), accounting and budgeting; 3) the SOCPEN system is the main system for SASSA's core business, which is the administration of social assistance grants.

3.6 SOCIAL SECURITY SYSTEMS IN OTHER PARTS OF AFRICA

As illustrated in the literature, African governments are placing an emergent emphasis on social security aimed at alleviating poverty to realise the millennium development goals (MDGs). Social assistance systems in Southern Africa should provide basic cash incentives for elderly persons not covered or adequately provided for by the contributing schemes that are in the formal environment (Niño-Zarazúa et al., 2010).

Dorfman (2015) elaborated that there was an emergence of non-contributory pensions in Mauritius and the Seychelles as part of social protection. He also hinted that Cape Verde had various forms of social assistance schemes for the elderly. It was reported that, in other parts of Africa such as Nigeria, Kenya, Zambia and Uganda, trial

programmes have been established since 2007 (Dorfman, 2015). All these initiatives are designed to protect those vulnerable and poor citizens who are not covered by contributory schemes.

3.7 SOCIAL GRANTS STATISTICAL ANALYSIS

The social protection system strives to alleviate poverty and inequality by giving social grants to destitute and vulnerable persons. As part of the government's intervention to reduce the high rate of poverty, a comprehensive social security system was implemented using SASSA to drive the programme. The programme targets mostly a particular class of people who are unable to sustain their livelihood without support from the government.

Table 3.1 and Figure 3.3 summarise the trend of social grants by type over a period of eight (8) years. There has been a consistent increase regarding old age, care dependency and child support grants over the period. As illustrated in the table, there is a notable decline in war veterans, disability and foster child grants. The negative growth of 1.08% was experienced during the 2013/14 financial year. It also important to note that child support grants accounts for more than a third of the total number of grants on average over the period.

3.7.1 Social grants numbers by type

Table 3.1: Number of Social Grants by Type, 2010/11 – 2017/18

Number of Social Grants by Grant Type								
Grant Type	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**
Old Age	2 678 554	2 750 857	2 873 197	2 969 933	3 086 851	3 194 087	3 302 202	3 423 337
War Veteran	958	753	587	429	326	245	176	134
Disability	1 200 898	1 198 131	1 164 192	1 120 419	1 112 663	1 085 541	1 067 176	1 061 866
Grant in Aid	58 413	66 493	73 719	83 059	113 087	137 806	164 349	192 091
Care Dependency	112 185	114 993	120 268	120 632	126 777	131 040	144 952	147 467
Foster Child	512 874	536 747	532 159	512 055	499 774	470 015	440 295	416 016
Child Support	10 371 950	10 927 731	11 341 988	11 125 946	11 703 165	11 972 900	12 081 375	12 269 084
Total	14 935 832	15 595 705	16 106 110	15 932 473	16 642 643	16 991 634	17 200 525	17 509 995
Annual Growth		**4,42%**	**3,27%**	**-1,08%**	**4,46%**	**2,10%**	**1,23%**	**1,80%**

Source: SOCPEN System

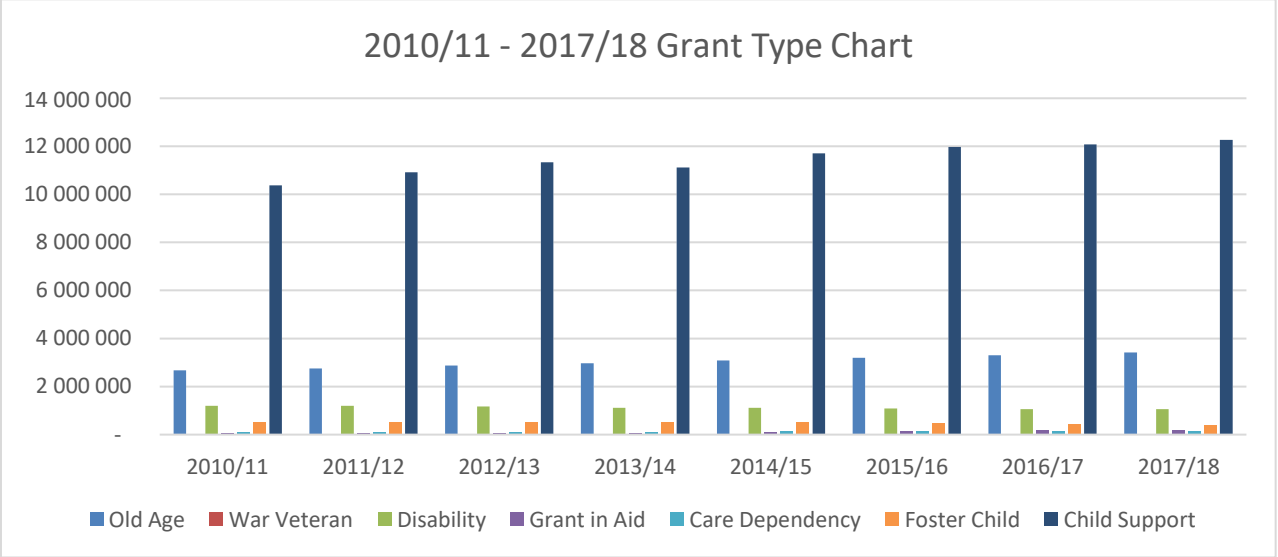

Figure 3.3: 2010/11 – 2017/18 Grant Type Chart

Source: Adapted from SOCPEN System

In 2018/19, 17.6 million beneficiaries received monthly grants and it is projected that 18.6 million beneficiaries will benefit from social grants in 2021/22. The greater part of these are assigned to the child support grant, which amounts to 12.5 million destitute children, and to the elderly grant, which assists 3.5 million persons older than 60. The national dominance of disability is 7.5%; consequently, the disability grant was provided to more than one million people during 2018/19. Table 3.2 illustrates the growth rate regarding the type of social grant over the medium-term.

Table 3.2: Social Grants Numbers by Grant Type

Social Grants numbers by grant type, 2018/19 - 2021/22

	2018/19 Revised estimate	2019/20	2020/21	2021/22	% of Total	Average annual MTEF growth
(Thousands)						
Child support	12 508	12 698	12 896	13 100	70,7%	1,6%
Old age[1]	3 538	3 664	3 796	3 935	20,8%	3,6%
Disability	1 052	1 052	1 049	1 050	5,8%	-0,1%
Foster care	365	351	334	318	1,8%	-4,5%
Care dependency	151	154	158	162	0,9%	2,2%
Total	**17 616**	**17 920**	**18 235**	**18 564**	**100,0%**	**1,8%**

1. Includes war veterans

Source: National Treasury

3.7.2 Demographic analysis of social grants

Table 3.3, as reflected in the SOCPEN system, shows a statistical summary of social grants in the nine (9) regions (provinces) of South Africa as at 31 March 2018.

Table 3.3: Number of Social Grants by Type and Region as at 31 March 2018

Number of Social Grants by Grant Type and Region as at 31 March 2018

Region	Grant Type							
	Old Age	War Veteran	Disability	Grant In Aid	Child Dependency	Foster Care	Child Support	Total
EC	563 424	21	181 856	22 013	22 454	99 033	1 896 733	2 785 534
FS	199 775	1	74 635	5 758	8 147	30 991	685 863	1 005 170
GP	585 280	47	117 069	6 585	19 369	48 132	1 836 031	2 612 513
KZN	680 826	15	235 297	56 314	39 518	83 525	2 791 870	3 887 365
LP	462 498	3	96 020	44 496	15 436	46 341	1 812 522	2 477 316
MP	249 651	3	78 251	16 162	11 345	30 351	1 086 592	1 472 355
NC	86 409	3	50 369	10 715	6 004	12 880	309 034	475 414
NW	256 415	2	73 535	11 110	10 047	33 094	844 394	1 228 597
WC	339 059	39	154 834	18 938	15 147	31 669	1 006 045	1 565 731
Total	**3 423 337**	**134**	**1 061 866**	**192 091**	**147 467**	**416 016**	**12 269 084**	**17 509 995**
% of Total	**19,55%**	**0,00%**	**6,06%**	**1,10%**	**0,84%**	**2,38%**	**70,07%**	**100%**

Source: SOCPEN System

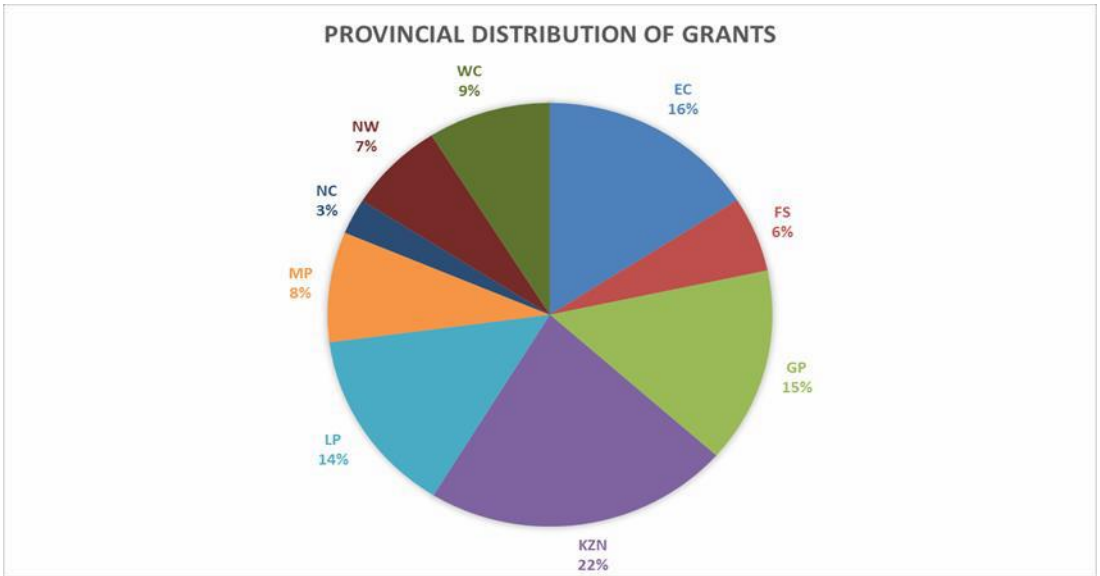

Figure 3.4: Provincial Distribution of Grants as at 31 March 2018

Source: Adapted from SOCPEN System

Figure 3.4 summarises the provincial distribution of all the types of grants as at 31 March 2018. Grant beneficiaries were most common in Kwazulu-Natal (KZN) (22%), Eastern Cape (EC) (16%), Gauteng (GP) (15%) and Limpopo (LP) (14%). By comparison, only 8% of beneficiaries in Mpumalanga (MP) and 6% in Free State (FS) were receiving social grants. A combination of beneficiaries in Western Cape (WC) (9%) and North West (NW) (7%) were equal to those in EC (16%). The least number of beneficiaries were found in Northern Cape (NC) (3%).

3.8 SOCIAL PROTECTION SPENDING OVERVIEW

As South Africa is facing high levels of poverty and unemployment, the spending on social grants becomes a necessity; however, this should be carried out in a sustainable way. The emphasis on spending is largely on expanding access to the social assistance network and restructuring and streamlining processes within the social welfare sector. Social protection expenditure represents about 12.8% of functional spending during the medium-term expenditure framework (MTEF) period.

3.8.1 Social security grants expenditure analysis

Because of the increased number of dependencies in the financial year 2018/19, R162 billion was spent on social security grants compared to 2006 (R57 billion); this is an upward trend that deserves immediate attention (SASSA Annual report 2015/16). According to the National Treasury (2019), the budget for social assistance reflected a projected increase of 7% in 2019/20 and 20% in the 2021/22 financial year.

Table 3.4: Average Monthly Social Grants Values

Grant Type	2017/18	2018/19	Percentage Change
	Rand		
State old age	1 600	1 695	5,9%
State old-age, over 75	1 620	1 715	5,9%
War veterans	1 620	1 715	5,9%
Disability	1 600	1 695	5,9%
Foster care	920	960	4,3%
Care dependency	1 600	1 695	5,9%
Child support	380	405	6,6%

Source: National Treasury (2019)

As shown in Table 3.4, these are products that SASSA provides as social grants to eligible clients. The monthly amounts are adjusted annually in order to keep up with the level of inflation. It can be noted from the table that both disability and old-age grants to persons over 75 years of age receive the highest amounts compared to the other types. The grant type with the lowest monthly value is child support; however, it assists the highest number of clients.

3.8.2 Social protection expenditure

Table 3.5 is a reflection of social grants expenditure for the 2018/19 financial year and the projected expenditure over the MTEF period. It is evident from the table that, while the expenditure related to all other social grant types is increasing, the foster care projection is declining. Although the child support grant commands the highest number of clients, the monetary value is far lower than that of the old-age category. For every old-age grant in terms of the value, at least four child support grants can be covered. The gross domestic product (GDP) expressed as a percentage of social grants remains steady on average at 3.2% over the MTEF period. The total projected number of social grant clients are set to increase by 1.8% to 18.5 million by 2022.

3.8.3 Administrative expenditure

Administrative expenditure incurred in the operational requirements of SASSA for the delivering of products concerns the payment of social grants to its clients. *This forms part of the core of this study, which seeks to investigate SASSA's current TC method regarding the allocation and determination of administrative costs.* To this end, the major cost drivers of administrative spending went towards the compensation of employees, spending on cash handling fees paid for the distribution of social grants to clients and for other operational needs, for example, office space, security services, cleaning services and travelling.

Administrative and distribution costs associated with social grant transfers account for a larger portion allocated budget to the social security policy programme. Administrative costs are set to decrease due to the projected escalation in social grant values, and the growth in the number of beneficiaries outstrips the administrative cost. This projected decline is mainly due to the streamlining of cash paypoints for the distribution of grants to clients flowing from the arrangement

between two public entities, namely, SAPO and SASSA. The signed agreement with SAPO is anticipated to be central to the superior delivery of services and cost containment.

Table 3.5: Social Protection Expenditure 2018/19 – 2021/22

Social protection expenditure, 2018/19 - 2021/22

R million	2018/19 Revised estimate	2019/20	2020/21	2021/22	% of Total	Average annual MTEF growth
Social protection expenditure	**192 714**	**207 064**	**222 728**	**238 661**	**100%**	**7,4%**
of which:						
Social grants	162 642	175 156	189 274	202 868	84,9%	7,6%
of which:						
Child support	60 603	64 967	70 336	75 723	31,6%	7,7%
Old-age	70 453	76 951	84 189	90 792	37,7%	8,8%
Disability	22 032	23 078	24 172	25 340	10,9%	4,8%
Foster care	5 202	5 081	4 947	5 023	2,3%	-1,2%
Care dependency	3 094	3 430	3 762	4 021	1,7%	9,1%
South African Social Security Agency	8 372	7 997	8 467	8 831	3,8%	1,8%
Provincial social development	20 199	22 349	23 542	24 957	10,6%	7,3%
Total	**192 714**	**207 064**	**222 728**	**238 661**	**100%**	**7,4%**
Social grants as percentage of GDP	3,2%	3,2%	3,3%	3,2%		
Social grants beneficiary numbers by grant type (Thousands)						
Child support	12 508	12 698	12 896	13 100	70,7%	1,6%
Old age[1]	3 538	3 664	3 796	3 935	20,8%	3,6%
Disability	1 052	1 052	1 049	1 050	5,8%	-0,1%
Foster care	365	351	334	318	1,8%	-4,5%
Care dependency	151	154	158	162	0,9%	2,2%
Total	**17 616**	**17 920**	**18 235**	**18 564**	**100,0%**	**1,8%**

1. Includes war veterans

Source: National Treasury (2019)

Table 3.6 reflects an illustrative projection of how improved efficiency in SASSA envisages that administrative costs, as a percentage of social grants, could fall from 5.1% of expenditure on social grants in 2018/19 to 4.6% in 2019/20. The downward trend is projected to continue to 4.4% by 2021/22. Administrative costs, indicated in the table, include all associated costs incurred in service delivery. The cost of disbursing social grants to clients using SAPO forms part of the administrative expenditure.

Table 3.6: Administrative Expenditure 2018/19 – 2021/22

Admin expenditure as a percentage of social grant, 2018/19 - 2021/22

R million	2018/19 Revised estimate	2019/20	2020/21	2021/22	% of Total	Average annual MTEF growth
Social protection expenditure	**192 714**	**207 064**	**222 728**	**238 661**	**100%**	**7,4%**
of which:						
Social grants	162 642	175 156	189 274	202 868	84,9%	7,6%
Administrative Expenditure	8 372	7 997	8 467	8 831	3,8%	1,8%
Provincial social development	20 199	22 349	23 542	24 957	10,6%	7,3%
Total	**192 714**	**207 064**	**222 728**	**238 661**	**100%**	**7,4%**
Admin expenditure as percentage of social grant	5,1%	4,6%	4,5%	4,4%		

Source: Adapted from National Treasury

3.9 OVERVIEW OF COSTING AND RESOURCE ALLOCATION IN SASSA

The source of funding for SASSA is through an appropriation from the National Revenue Fund through the DSD's vote. SASSA's baseline allocation trajectory has been declining due to national government's re-prioritisation drive to fund urgent demands such as free tertiary education. The allocated budget has, however, been apportioned to fulfil its mandate. The PFMA directs accounting authorities to manage available resources in an efficient and effective manner as provided for in Section 38(1) (c) (iii) and 51(1)(b)(iii).

3.9.1 Budgetary process

Budgeting is part of SASSA's structural planning process. The planning process begins with outlining SASSA's reason for existence as mandated by the Act. The direction which the organisation is heading informs a strategic plan that must be formulated as a broad guideline demonstrating how the organisation aims to achieve its mission. After the formulation of the strategic plan, daily activities are defined in an operational plan. This process is linked to the budgeting cycle and applies the National Treasury guidelines regarding the compilation of budget inputs. The In-Year Monitoring process will determine and reveal the achievement or non-achievement of the set goals and objectives.

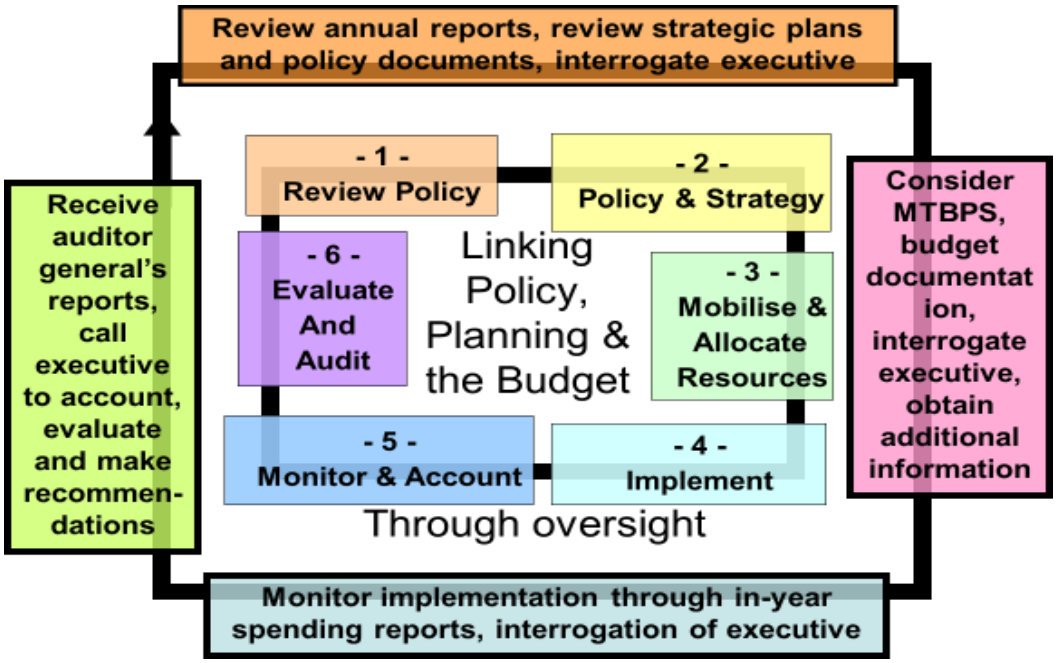

Figure 3.5: SASSA Presentation on Budgetary Process

Figure 3.5 depicts an overview of the budgetary process as follows:

1. Review policy: Review previous plan and policy regarding implementation.

2. Policy and strategy: Establish the fiscal objectives and resource framework, set out ideas, policies, approaches and expenditure concerns through strategic plans.

3. Mobilise and allocate resources: Finalise resource projections, agree on resource allocations, identify outputs and activities and prepare budget estimates.

4. Implement: Release funds, deploy personnel and undertake activities.

5. Monitor and account: Report on expenditures against budget and performance against plan and monitor the implementation of activities.

6. Evaluate and audit: Evaluate performance and obtain external verification of performance.

As Johansson and Siverbo (2014) argued, budgeting and budget control represent the fundamental logic for planning, control and accountability in public organisations, which is also applicable to SASSA. This logic persists despite the common disapproval of budget control in the accounting literature (Marginson & Ogden, 2005) and the beyond budgeting literature (Bourmistrov & Kaarbøe, 2017; Fraser & Hope, 2003). The rationale behind public sector budgeting is that allocation must be used for welfare commitments. SASSA is required to transform these resources in the budget into social and welfare services and add value to the citizens as politically intended.

3.9.2 Summary of budget information

For this illustration, budget information is based on an extract of the expenditure report from the general ledger for the 2017/18 financial year. Personnel costs comprise costs associated with salaries and related benefits. These are the major cost components representing 42% of the total administrative expenditure. Social assistance service fees represent the costs of contracted service providers for cash disbursement of social grants to clients. These costs reflect 29% of the total administrative costs, this can be interpreted to indicate that for every hundred rand spent, twenty-nine rand is channelled towards the payment of service fees. Administrative expenses are a summarised version of costs associated with the activities performed in delivering social grant products. Table 3.7 reflects a summary of expenditure items.

Table 3.7: SASSA Admin Expenditure Report Extract: 31 March 2018

Description	Actual Amount
	R thousand
Personnel Costs	3 027 304
Finance Cost	12
Maintenance and Repairs	25 041
Social Assistance Service Fee	2 112 445
Administrative Expenses	1 919 767
Depreciation	121 899
Debt Impairment	733
Total	7 207 201

Source: Adapted from SASSA 2017/18 Annual Report

The following three cost centres classifications are identified:

The grant operations branch provides the core function; these cost centres are directly linked to the activities that implement the distribution of social grant products to clients.

The corporate services branch provides a support function; these cost centres are connected to the entire range of activities that are carried out in the delivery process.

Functional: this category of cost centres is usually indirectly connected to the activities that are conducted in the delivery of social grant products to clients; however, they are necessary for the organisational control. The cost centre managers are responsible for the budgetary and expenditure monitoring within their area. Expenditures are reported monthly as per the accrual basis of accounting.

3.10 CALCULATION OF ADMINISTRATIVE COST PER SOCIAL GRANT: CASE STUDY

This case study will be an illustration of how the calculation of the administrative cost per social grant will differ under the three methods of costing, namely, TC, ABC and TDABC. The figures used are, therefore, an assumption and provide an insight into the application of different cost driver rates using these three costing systems. This, in turn, will be aligned to the objectives of the study by illustrating how comparative analysis could help resolve the problem of administrative costs.

3.10.1 Calculation of administrative cost per social grant using current costing method

The current costing method adopted by SASSA allocates a budget at the cost centre level, comprising managers as heads of units. Referring to the SASSA organisational structure discussed in Section 3.3, branches are broken down into departments, which, in turn, comprise units. These cost centres are causally related to a functional structural unit to which the equivalent accountability centre is strictly linked.

Assuming that all the social grant types require a standard process and are thus homogenous in nature, the administrative cost per social grant using the current method, considering the administrative cost as shown in Table 3.7 and the total

number of social grants clients as depicted in Table 3.3, are determined out as follows:

The administrative costs are divided by the total number of social grants produced for the period ending 31 March 2018 (R7 207 201 / 17 510 social grants), which equals to R411,60 administrative cost per social grant. Under the current costing method, it could, therefore, be assumed that it costs SASSA R411,60 in administrative cost to produce a social grant. With a specific focus on the child support grant, as reflected in Table 3.4, it implies that it costs SASSA R411,60 administrative cost to produce a child support grant valued at R380 when using the current allocation method.

3.10.2 Comparing the traditional and the activity view of budget information

Following Brown et al. (1999), the outlay to compare TC with ABC are exhibited in Table 3.8. Their example was adapted, as it best demonstrates the complexity of ABC practically. The activities depicted in Table 3.8 represent some of the activities emanating from grant operations and finance and corporate services processes. It serves as an example of illustrating the ABC method. As depicted in Table 3.8, the traditional view reflects information that uses the number of officials in the cost centre to apportion the total budget. The activity view shows, however, that various cost drivers, which are these activities, will better explain the cost data for the delivery of social grant products provided by SASSA. It becomes clearer in the activity view that activities, unlike volumes, reflects details of what officials are performing on a day to day basis. As shown in Table 3.8, for example, the number of stakeholder engagement, grants application captured or number of payments processed can be measured and the cost attached in relation to the number of activities.

Table 3.9 depicts the calculation of cost driver rate, which can be calculated as the cost assigned to an activity divided by the number of activities. For example, to verify grant application, of which the cost driver is the number of clients, the total cost assigned of R1,079 billion is divided by 9,920 million clients which gives a rate of R109 per cost driver. It can be interpreted that for every grant verification activity performed, R109 is the cost to be assigned. Therefore, by controlling the cost driver, the administrative cost could also be managed.

Table 3.8: Traditional vs. Activity View of Budget Information

Traditional View		Activity View	
Cost Centre	**R'000**	**Activities**	**R'000**
Grant Operations	1 027 304	Perform administrative function	43 150
Corporate Services	2 920 532	Process orders	112 750
Functional	3 259 385	Staff placement	8 205
		Stakeholder engagement	812 000
		Customer engagement	1 385 650
		Capture grants application	1 205 750
		Verify application	1 079 535
		Process payments	853 455
		Attend training & workshop	15 000
		Provide training	9 050
		Analyse reports	110 650
		Pre-audit	19 500
		Manage performance	15 320
		Collect debt	85 500
		Perform special projects	619 005
		Monitor network connectivity	227 500
		Manage fleet	605 181
Total	**7 207 221**		**7 207 201**

Source: Adapted from Brown et al. (1999)

Following the activities identified above, the cost driver rate is illustrated in Table 3.9.

Table 3.9: Calculation of Cost Driver Rate

Activities	Cost Drivers	Cost Assigned R'000	Quantities of Activities '000	Cost Driver Rate Rand
Perform administrative function	No. of hours worked	43 150	11	3 923
Process orders	No. of transactions	112 750	13	8 673
Staff Placement	No. of appointments	8 205	9	912
Stakeholder engagement	No. of meetings	812 000	139	5 842
Customer engagement	No. of clients	1 385 650	12 250	113
Capture application	No. of clients	1 205 750	10 850	111
Verify application	No. of clients	1 079 535	9 920	109
Process payments	No. of transactions	853 455	400	2 134
Attend training	No. of staff	15 000	4	3 750
Provide training	No. of staff	9 050	2	4 525
Analyse reports	No. of reports	110 650	9	12 294
Pre-audit	No. of transactions	19 500	4	4 875
Manage performance	No. of staff	15 320	2	7 660
Collect debt	No. of debtors	85 500	3	28 500
Perform special projects	No. of projects	619 005	9	68 778
Monitor network	No. of hours	227 500	15	15 167
Manage fleet	No. of trips	605 181	68	8 900
Total Cost		**7 207 201**		

Source: Adapted from Kaplan and Anderson (2003)

3.10.3 Calculating admin cost per social grant using activity-based costing

As demonstrated by Kaplan and Anderson (2003) in their classic ABC model, for each activity, cost driver rates are calculated to be applied when allocating overhead costs to identified cost objects such as clients, products or services, equivalent to their share in the activities. As illustrated in Table 3.10, where labour is a core resource, direct labour consumed in delivering the activity is applied to determine the cost driver rate.

Table 3.10 below reflects the distribution of the cost drivers per grant type that will be used to allocate the administrative cost per grant. The quantity of activities is, therefore, a reflection of the demand of those activities indicated per product, namely, the stakeholder engagement activity for disability (176) is less than that of the old-age product (236). More will, therefore, be allocated to the old age product than to the disability product regarding stakeholder engagement. Having this valuable cost information on hand will better equip organisations to allocate the costs to the clients and products that consume their services.

Table 3.10: Allocating Admin Cost per Grant

Activities	Cost Driver	Old Age	Disability	Foster Care	Care Dependency	Child Support	Total
		Thousand					
Perform administrative function	Hours worked	120	140	80	80	60	480
Process orders	Transactions	51	49	47	48	40	235
Staff Placement	Appointments	208	288	168	188	108	960
Stakeholder engagement	Meetings	236	176	96	136	76	720
Customer engagement	Clients	5	5	5	5	5	25
Capture application	Clients	5	7	4	5	4	25
Verify application	Clients	6	4	4	3	3	20
Process payments	Transactions	60	80	50	90	60	340
Attend training	Staff	236	256	176	166	126	960
Provide training	Staff	180	140	140	180	81	721
Analyse reports	Reports	180	180	140	160	60	720
Pre-audit	Transactions	120	160	60	80	60	480
Manage performance	Staff	112	152	132	102	102	600
Collect debt	Debtors	166	161	172	176	166	841
Perform special projects	Projects	110	150	180	120	160	720
Monitor network	Hours worked	168	168	168	168	168	840
Manage fleet	Trips	184	184	184	184	184	920

For this study, Table 3.11 outlined the administrative cost for each of the grant types. This is calculated as a multiplier of a pre-determined rate and the level of cost driver activity. For example, the child support grant overhead allocated to stakeholder engagement will be the pre-determined rate of R5 842 multiplied by 66, which is the

level of the cost driver activity; hence, the overhead allocated is R385 554. The administrative cost per grant type is illustrated in Table 3.12.

Table 3.11: Determination of Total Admin Cost

Activities	Pre-determined Overhead Rate	Old Age		Disability		Foster Care		Care Dependacy		Child Support		Total
		Cost Driver Activity	Overhead Allocated	Cost Driver Activity	Overhead Allocated	Cost Driver Activity	Overhead Allocated	Cost Driver Activity	Overhead Allocated	Cost Driver Activity	Overhead Allocated	
	Thousand											
Perform admin function	3 923	3	11 768	3	11 768	1	3 923	3	11 768	1	3 923	43 150
Process orders	8 673	2	17 346	4	34 692	2	17 346	2	17 346	3	26 019	112 750
Staff Placement	912	3	2 735	2	1 823	1	912	1	912	2	1 823	8 205
Stakeholder engagement	5 842	13	75 942	20	116 835	18	105 151	22	128 518	66	385 554	812 000
Customer engagement	113	4 517	510 937	1 200	135 737	200	22 623	255	28 844	6 078	687 509	1 385 650
Capture application	111	3 946	438 515	900	100 016	132	14 669	179	19 892	5 693	632 658	1 205 750
Verify application	109	3 679	400 364	876	95 330	129	14 038	128	13 929	5 108	555 873	1 079 535
Process payments	2 134	96	204 829	58	123 751	97	206 963	66	140 820	83	177 092	853 455
Attend training	3 750	0,6	2 250	1	3 750	1	1 875	1	4 875	1	2 250	15 000
Provide training	4 525	0,3	1 358	0	1 358	1	2 715	0,4	1 810	0	1 810	9 050
Analyse reports	12 294	2	24 589	2	24 589	2	24 589	1	12 294	2	24 589	110 650
Pre-audit	4 875	1	5 363	2	9 750	0,1	488	1	2 925	0,2	975	19 500
Manage performance	7 660	0,6	4 596	0,3	2 298	1	4 596	0,3	2 298	0,2	1 532	15 320
Collect debt	28 500	0,4	11 400	1	28 500	1	19 950	1	14 250	0,4	11 400	85 500
Perform special projects	68 778	1	68 778	2	137 557	3	206 335	1	68 778	2	137 557	619 005
Monitor network	15 167	4	60 667	4	60 667	2	30 333	3	45 500	2	30 333	227 500
Manage fleet	8 900	24	213 593	19	169 095	13	115 696	5	44 499	7	62 298	605 181
Total Overhead Cost			2 055 030		1 057 515		792 202		559 259		2 743 195	7 207 201

Table 3.12: Admin Cost per Grant Type Using ABC

Activities	Old Age	Disability	Foster Care	Care Dependency	Child Support	Total
	Thousand					
Total Admin Cost	2 055 030	1 057 515	792 202	559 259	2 743 195	**7 207 201**
Number of Grants used for calculation	3 538	1 052	365	151	12 508	**17 614**
Admin Cost per Grant	**581**	**1 005**	**2 170**	**3 704**	**219**	**409**

Table 3.12 reflects the calculation of the administrative cost per grant, which is the total administrative cost divided by the number of grants per type. Based on the information provided in the example, it could be interpreted that the administrative cost of the child support grant could be estimated to be R219 when using the ABC method. ABC represents a sophisticated method that requires more research and regular updates on activities, and, as such, will produce much more accurate cost information than the TC. This is in contrast to the calculation in Section 3.10.1, where the traditional method was used, which resulted in an administrative cost of R411,60 per child support grant as per the volume-based approach. This approach ignores the fact that *not all the grant types consume the same level of cost driver activity* and, consequently, will not incur the same cost.

The successful implementation of ABC could solve the costing inaccuracies posed by the TC method currently applied in SASSA. Due to the nature and complexity of

different products and services expansions, clearly defined activities that consume resources could be accurately assigned to products, notwithstanding the assertions that ABC could improve the evaluation of how to deliver services efficiently. More must still be done before the use of ABC could yield the desired outcomes (Mullins & Zorn, 1999). Management must put proper processes in place when deciding on ABC implementation, as the below par planning of ABC initiation could result in a fruitless exercise without making an impact to transform ABC (Rowe, 1995).

3.10.4 Calculating the administrative cost per social grant using time-driven activity-based costing

While the ABC method could provide solutions that are experienced with the traditional method, there are, however, some drawbacks such as high implementation costs, maintenance and updating of the model, as elaborated by Kaplan and Anderson (2003). They contended that the solution is to simplify the approach by introducing the TDABC, which uses time as its key cost driver and is applied for assigning cost of resource directly to objects.

For this example, Table 3.13 assumes that the practical full capacity is 80% to 85% of full capacity in theory. The 20% variation will allow for lunch, breaks and other unproductive times spent by employees. In reality, some employees don't arrive on time to work due to various reasons including traffic congestions, unreliable public transport and the effect of electricity load shedding amongst others. It must also be noted that the practical capacity will vary from one organization to another.

In calculating the practical capacity, assuming that there are 12 500 employees to process social grant applications as per the standard process, theoretically, each of them will supply 1 880 hours (47 weeks per annum x 40 hrs per week) per annum or 112 800 minutes per annum. The practical capacity at 80% could, therefore, be estimated at 90 240 minutes per annum per employee. The total available capacity is, therefore, 1 410 000 000 minutes per annum. The cost per minute of supplying capacity can be calculated as the total cost of supplying capacity divided by the total time supplied (R7 207 201 000/1 410 000 000 minutes), which equals R5,11.

Table 3.13: Calculation of Cost Driver Rate Using TDABC

Activities	Quantity (Hundred)	Unit Time (Minutes)	Total Time Used (Minutes)	Cost Driver Rate	Total Cost Assigned
Perform admin function	11 000	480	5 280 000	R2 453	26 980 800
Process orders	13 000	235	3 055 000	R1 201	15 611 050
Staff Placement	9 000	960	8 640 000	R4 906	44 150 400
Stakeholder engagement	139 000	720	100 080 000	R3 679	511 408 800
Customer engagement	12 250 000	25	306 250 000	R128	1 564 937 500
Capture application	10 850 000	25	271 250 000	R128	1 386 087 500
Verify application	9 920 000	20	198 400 000	R102	1 013 824 000
Process payments	400 000	340	136 000 000	R1 737	694 960 000
Attend training	4 000	960	3 840 000	R4 906	19 622 400
Provide training	2 000	721	1 442 000	R3 684	7 368 620
Analyse reports	9 000	720	6 480 000	R3 679	33 112 800
Pre-audit	4 000	480	1 920 000	R2 453	9 811 200
Manage performance	2 000	600	1 200 000	R3 066	6 132 000
Collect debt	3 000	841	2 523 000	R4 298	12 892 530
Perform special projects	9 000	720	6 480 000	R3 679	33 112 800
Monitor network	15 000	840	12 600 000	R4 292	64 386 000
Manage fleet	68 000	920	62 560 000	R4 701	319 681 600
Total Used			1 128 000 000		5 764 080 000
Total Supplied			1 410 000 000		7 207 201 000
Unused Capacity			282 000 000		1 443 121 000

Source: Adapted from Kaplan and Anderson (2003)

As depicted in Table 3.13, the cost driver rate for customer engagement is calculated as unit time multiplied by cost per minute (25 units times by R5,11), which equals R128, for capturing the application of the cost driver rate (25 units times by R5,11). This equals R128, while verifying the application is calculated as 20 units times by R5,11, which equals R102. Furthermore, other activities such as staff placement and attending training cost R4 906 for each of the activities; the estimated unit time of 960 is then required. Therefore, in order to manage the cost of these activities, management has a better insight about the activities to control.

One of the fundamental factors of TDABC is that the cost of unused capacity could be reviewed towards the introduction of a developmental policy trajectory in providing new products or services to be rendered (Kaplan & Anderson, 2003). As times are based on estimates, the 282 000 000 minutes of unused capacity, as shown in Table 3.13, could, for example, be channelled towards linking clients to job opportunities in line with the National Development Plan (NDP).

Table 3.14: Determining Administrative Cost per Grant

Activities	Old Age			Disability			Foster Care			Care Dependency			Child Support		
	Quantity	Unit Time (Minutes)	Total Minutes	Quantity	Unit Time (Minutes)	Total Minutes	Quantity	Unit Time (Minutes)	Total Minutes	Quantity	Unit Time (Minutes)	Total Minutes	Quantity	Unit Time (Minutes)	Total Minutes
Perform admin function	3 000	120	360 000	3 000	140	420 000	1 000	80	80 000	3 000	80	240 000	1 000	60	60 000
Process orders	2 000	51	102 000	4 000	49	196 000	2 000	47	94 000	2 000	48	96 000	3 000	40	120 000
Staff Placement	3 000	208	624 000	2 000	288	576 000	1 000	168	168 000	1 000	188	188 000	2 000	108	216 000
Stakeholder engagement	13 000	236	3 068 000	20 000	176	3 520 000	18 000	96	1 728 000	22 000	136	2 992 000	66 000	76	5 016 000
Customer engagement	4 517 000	5	22 585 000	1 200 000	5	6 000 000	200 000	5	1 000 000	255 000	5	1 275 000	6 078 000	5	30 390 000
Capture application	3 946 000	5	19 730 000	900 000	7	6 300 000	132 000	4	528 000	179 000	5	895 000	5 693 000	4	22 772 000
Verify application	3 679 000	6	22 074 000	876 000	4	3 504 000	129 000	4	516 000	128 000	3	384 000	5 108 000	3	15 324 000
Process payments	96 000	60	5 760 000	58 000	80	4 640 000	97 000	50	4 850 000	66 000	90	5 940 000	83 000	60	4 980 000
Attend training	600,0	236	141 600	1 000	256	256 000	500	176	88 000	1 300	166	215 800	600	126	75 600
Provide training	300,0	180	54 000	300,00	140	42 000	1 000	140	140 000	400,0	180	72 000	400	81	32 400
Analyse reports	2 000	180	360 000	2 000	180	360 000	2 000	140	280 000	1 000	160	160 000	2 000	60	120 000
Pre-audit	1 000	120	120 000	2 000	160	320 000	100,0	60	6 000	1 000	80	80 000	200,0	60,0	12 000
Manage performance	600	112	67 200	300,0	152	45 600	1 000	132	132 000	300,0	102	30 600	200,0	102,0	20 400
Collect debt	400	166	66 400	1 000	161	161 000	1 000	172	172 000	500	176	88 000	400,0	166,0	66 400
Perform special projects	1 000	110	110 000	2 000	150	300 000	3 000	180	540 000	1 000	120	120 000	2 000	160	320 000
Monitor network	4 000	168	672 000	4 000	168	672 000	2 000	168	336 000	3 000	168	504 000	2 000	168	336 000
Manage fleet	240 000	184	44 160 000	19 000	184	3 496 000	13 000	184	2 392 000	5 000	184	920 000	7 000	184	1 288 000
Total Quantity	**12 508 900**			**3 094 600**			**603 600**			**669 500**			**17 048 800**		
Total Minutes per grant			**120 054 200**			**30 808 600**			**13 050 000**			**14 200 400**			**81 148 800**
Admin Cost Per Grant			**R575,85**			**R597,34**			**R1 297,22**			**R1 272,63**			**R285,59**

Table 3.14 illustrates calculating the administrative cost per grant. The administrative cost to produce the disability grant is an estimated amount of R597,34. The amount is calculated by dividing the total minutes (30 808 600 minutes) by the total number of grants (603 600).

The cost driver rates calculated above could, therefore, be applied to assign costs to clients as social grants applications are processed. Practically, when an old-age or disability grant client applies for a social grant, a three-unit time will be estimated and the cost assigned as per the applicable rate. Past literature regards TDABC as a method that accurately pinpoints the costs of activities while at the same time estimates the amount of time spent in carrying out those activities.

3.10.5 Administrative cost per grant comparison of traditional costing, activity-based costing and time-driven activity-based costing

Table 3.15 illustrates the difference in calculating the administrative cost per grant using the three costing methods. It is important to demonstrate the central differences between the three costing methods in order to reflects what bases does each type determine the administrative cost. It must be noted that there are fundamental differences between TC and ABC, however, TDABC is built on the foundation of ABC, therefore, an extension of ABC. This provide vital cost information for management to formulate cost structure which aligns the strategic goals of the organisation with budget and reporting.

Table 3.15: Comparison of Administrative Cost Per Grant Using TC, ABC and TDABC

Costing Method	Allocation Bases	Administrative Cost Per Grant				
		Old Age	Disability	Foster Care	Care Dependency	Child Support
TC	One overhead rate for all the products (Volume-based approach) Total Cost/Total number of grants	R411,60	R411,60	R411,60	R411,60	R411,60
ABC	Allocates cost to products from activity cost pools using allocation bases related to cost drivers Overhead rate per activity x level of cost driver activity used by the product	R580,85	R1 005,24	R2 170,42	R3 703,70	R219,32
TD ABC	Estimates of unit cost of supplying capacity and the time required to perform an activity Cost of Capacity Supplied/Practical Capacity of Resources Supplied	R575,85	R597,34	R1 297,22	R1 272,63	R285,59

Table 3.15 depicts a scenario where the administrative cost per grant differs for all the costing methods. As reflected above, however, according to the TC method, the administrative cost is R411,60 irrespective of the grant type. The level of cost driver activity for child support grant calculates the administrative cost at R219,32 when using ABC. On the other hand, TDABC uses the cost of supplying capacity and time to perform activities related to child support grant and calculates the administrative cost as R285,59.

The level of cost driver activity for the child support grant calculates the administrative cost at R219,32 when using ABC. On the other hand, TDABC uses the cost of supplying capacity and time to perform activities related to the child support grant to calculate the administrative cost at R285,59.

On closer examination of the different methods of calculating cost driver rates using TC, ABC and TDABC in calculating the administrative cost per social grant, TC uses the volume-based allocation approach such as direct labour cost and assumes that costs are driven by the volumes of products, in this case, the total number of social grants provided. This method ignores the reality that not all overhead costs are linked to the provision of social grant products. The ABC method recognises that products do not incur overheads in those proportions; instead, activities performed to produce products do. It was suggested that TDABC could be a less accurate method than the conventional ABC method; however, to implement it does not require such in-depth

research to define the activities and the cost drivers.

3.11 SUMMARY

As SASSA strives to accomplish its mandate dictated by the Constitution to provide social assistance to poor and marginalised people in South Africa, several gains were realised to this end. The organisational structure provided an understanding of the size, reporting lines and the general composition of SASSA as an organisation. The statistical analysis discussed above shows the impact of SASSA intervention in addressing challenges faced by poor people in society. It also provided an insight into what SASSA is about and the role it plays in society. In his overview, the SASSA CEO acknowledges that, despite all the challenges, SASSA managed to continue giving hope by paying social grants to more than 17 million clients. He further disclosed that the 2017/2018 financial year was also branded by several organisational blockages that disempowered SASSA from delivering the most needed income support to its clients, most of which live far below the poverty line (2017/18 SASSA Annual Report). The different costing methods discussed provide an opportunity for SASSA management to consider the most suitable to approach to adopt.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

The foregoing chapter discussed the framework for social security assistance in SASSA. The purpose of this chapter is to discuss the research methodology used for this study. Chapter 2 and 3 outlined the framework for the empirical research that formed the basis of the literature study. An empirical study will be used to afford a comprehensive examination of ABC implementation as an alternative to TC in SASSA. This chapter will, therefore, deliberate the research design and validation, sampling and methods of gathering information and the research instruments. Limitations and ethical considerations will also be discussed.

The research design is anchored in a theoretical framework that informs and gives direction to the study. For this study, the research design considers the instrument and procedures to be applied for gathering and analysing data, answering the “how” question. The semi-structured questionnaire as an instrument will play a central role in the data collection process and has a greater impact on the quality of data. The participants in the study were finance officials at management level with vast experience in SASSA.

This data will help towards achieving the primary objective, which is to do a comparative analysis of ABC as an alternative to TC in SASSA, which was discussed in Chapter 2. Chapter 2 also delivered the first part of the secondary objective, which is to evaluate whether the implementation of ABC could provide an alternative to TC and promote cost-effectiveness and accountability in SASSA. The second part, which is to investigate SASSA’s current traditional costing method as well as the third part of the secondary objective, which is to investigate the applicability of implementing ABC in the public sector and in SASSA, was addressed in Chapter 2 and, partly, in Chapter 3. The fourth part of the secondary objective, which is to explore how the implementation of TDABC on conventional ABC could lead to effective cost management, was also discussed.

4.2 RESEARCH DESIGN

As illustrated by McQueen and Knussen (2013), research design denotes the method and organisation of an investigation chosen to conduct data collection and analysis. As argued by Leedy and Ormrod (2010), the research design is an organisational frame that directs how the gathering of data and analysis could be done to address a research problem. As outlined by Maxfield and Babbie (2014), a research design stipulates who or what must be investigated, when, how and the rationale. The research design enables the reader to critique the extent to which using the design would address the research questions satisfactorily.

A quantitative study could be described as an investigation that primarily derives data that is inherently numerical in nature or could be easily interpreted in numbers (Leedy, 2014). As defined by Bell and Bryman (2007), quantitative research is researching that stresses numbers in data gathering and data analysis. This style of research could be referred to as a tactic that is deductive and objective. A quantitative study could also be regarded as an approach that places more emphasis on the quantification of data, namely, shaping data by using numbers. Researchers have observed that quantitative research is unbiased and is placed within a positivistic context (Zikmund, Babin, Carr & Griffin, 2010).

On the contrary, a qualitative study could be described as research that brings forth descriptive data. This approach focuses on descriptive words rather than quantities in the gathering of data. Qualitative research is based on a framework that is inductive and subjective in nature and experiences, which is thus interpretive (Zikmund et al., 2010). Qualitative research is preferable in cases where information derived cannot be easily reduced to number, and typically involves an in-depth examination of a phenomenon (Leedy & Ormrod, 2014). Salkind (2012) defined qualitative research as a way of exploring questions to properly explain a phenomenon that quantitative methods missed. Qualitative research considers that, to comprehend a subject clearer, one must perceive it from the point of view of those who experience it and try to appreciate their expression (Leedy, 2014).

The participant's frame of mind during the interview is fundamental to the paradigm (Collis & Hussey, 2009). For this study, probing is relevant, as the aim is to reveal the

applicability of the ABC method in SASSA and formulate a framework for future studies. To pursue a comprehensive analysis of the ABC implementation in SASSA, it is, therefore, appropriate to apply a qualitative methodology to this study.

4.3 RATIONALE FOR CHOICE OF RESEARCH DESIGN

The literature revealed that quantitative studies in the past were carried out to investigate factors that have a bearing on the successful adoption of ABC in public organisations. According to the researcher, the South African perspective regarding this kind of research is scarce. Creswell (2013) defined qualitative research as the process that encompasses evolving questions and procedures and data collected according to the participants' setting.

Oseifuah (2013), in his study to investigate the suitability of ABC in public organisations and, particularly, in the Buffalo City Municipality, applied the quantitative approach by collecting data using a questionnaire. When assessing the success of ABC implementation at the SAPO, Taba (2005) collected data from the employees using a quantitative technique. Sartorius et al. (2007) focused on the design and implementation of ABC with specific reference to South Africa, using an email survey to collect data.

The literature also, however, revealed that qualitative studies were conducted regarding the implementation of ABC in the public sector. Bvumbi (2017) analysed the implementation of ABC at the Water Trading Entity, applying a qualitative approach by collecting data through semi-structured interviews. Vazakidis et al. (2010), when analysing ABC in the public sector, collected data via interviews. Stouthuysen et al. (2014), in their study on TDABC for the public services, also applied the qualitative technique using interviews as a research instrument.

Furthermore, analysing the data inductively builds from specifics to broad themes and interprets the significance of the data (Oberholzer, 2018). Quantitative techniques are applied when numerical extent or measures are a key element. This approach tends to have a confirmatory angle. A qualitative approach is centred around the principle of in-depth probing and analysis of certain elements of the topic being studied; they are exploratory in nature.

Bell and Bryman (2007) advised formulating questions in the beginning to guide the literature search and design. They further suggested that a good research question is clear and researchable. Although it might be likely that ABC implementation is considered as an alternative costing method, factors such as the applicability and perception might, however, have to be tested. A qualitative approach was chosen for this study to understand the context in which participants address a problem and to hear their voices (Creswell, 2013). The objective of this study was not to provide a toolkit for organisations to implement ABC, but rather to widen the body of knowledge regarding ABC implementation within public organisations.

4.4 RESEARCH METHODOLOGY

Ngulube (2013) and Visagie and Maritz (2009) considered methodology as fundamental to the research practice. They regard it as the researcher's ability to gain insight about a topic and provide answers to the research questions. Methodology refers to the techniques applied to investigate a subject matter or topic, a research question or hypothesis. It is how a topic is investigated or researched. The methodology stipulates the kinds of research designs and methods that might be applied to gather information about a phenomenon. The most common way of classifying methodology is to cluster the technique as either quantitative or qualitative.

Walliman (2011) described the research method as a tool and technique for doing research. The research could be regarded as a form of investigation to uncover interesting or new facts. Leedy and Ormrod (2014) argued that the approach taken would guide the research strategies or tools that must be selected. Walliman (2011) added that methods provide ways to collect, sort and analyse information in order to draw conclusions. Below is a discussion on the approach this study took to collect and analyse data.

4.4.1 Research instruments

The data were collected by conducting semi-structured interviews. The purpose of the interviews was to give a voice to the participants regarding the specific issues being investigated (Visagie & Maritz, 2009). In a semi-structured interview, the interviewer is exploring why participants do or believe something. The interview consists of a pre-determined set of questions that is sufficiently flexible to afford the participant a chance

to shape the stream of information provided.

Interviews are suitable in a field where little information is available about the study (Gill, Stewart, Treasure & Chadwick, 2008). Thorough understanding is sought from participants through the interview route. The interviewer must set up the interview, take charge of other logistical arrangements such as the venue and agenda and lead the questioning (Hofstee, 2006). Participants respond to questions and describe their experiences and understanding about the topic.

Gill et al. (2008) suggested that semi-structured interviews afford the researcher to track a thought comprehensively and apply a smaller sample size, as more information could be collected from participants. As interviews are more interactive in nature, researchers can dig for full, rich responses and probe into any evolving concept. Interviewing should, therefore, widen the range of understanding the studied phenomenon (Zikmund, 2002). There is currently minimal knowledge about the studied phenomenon. Although ABC implementation in public service has benn revealed in articles, books and journals, semi-structured interviews might lead to new information.

The semi-structured questions were developed to evaluate whether the implementation of ABC could provide an alternative to traditional costing and promote cost-effectiveness and accountability. To contain cost and apply sustainable allocation measures in line with government priorities, a new allocation system deserves consideration. The successful implementation of ABC is reliant on the buy-in of the key role players. The question as to who should be involved in the ABC implementation initiative is critical and would determine management's seriousness about the project. It is important to find out from the participants the accuracy and sufficiency of the available information that is provided to management in order to make strategic financial decisions. As argued by Kee (2012), to successfully manage a programme, the cost of resources required to deliver services must be understood.

Within the public sector, where manual systems are prevalent, exploring the significance of an ERP system in the implementation of ABC is critical. Participants' views on how they would go about identifying the different cost components and its drivers would help to shed some light on how the cost structure would be shaped. The nature of ABM is that it enhances operational efficiency and places emphasis on doing things correctly and executing activities efficiently. Investigating the participants'

understanding of what should be different regarding efficiency when ABC is successfully implemented in SASSA would provide clarity about the decision to implement. It is vital to find out about the perception of ABC among the participants in order to explore the applicability and suitability of implementation. As Creswell (2013) pointed out, the qualitative principle undertakes that genuineness is socially created and participants understand it accordingly.

4.4.2 Target population

According to Salkind (2012), the aim is to select a sample from a population that most closely matches the characteristics of that population. He further stated that a research population is the larger group of participants, while the smaller group is referred to as a sample. The strategy is, therefore, to select the participants from a larger group while having the sample resemble the population as much as possible.

In this study, for example, senior managers and managers are a research population, as they possess homogenous characters and they are all working in the finance environment. Castillo (2009) detected that a target population is the complete cluster of individuals on which the results of the study are generalised. Because of constraints due to time and resources, some participants will be inaccessible; therefore, a portion of a target population will be researched (Salkind, 2012). The reachable population is stated as the available or study population. It becomes a sub-section of the target population whose standing is subject to the availability of time and resources to the researcher (Castillo, 2009; Salkind, 2012).

In this study, interviews were conducted with individual employees; the unit of analysis thus becomes individual employees. The benchmark for inclusion is characteristics that are essential to participate in the earmarked population, as supported by Blaikie (2003). The characteristics that the researcher considered when selecting the study population include finance experience and ERP knowledge. The population of this study, therefore, comprised twenty (20) employees who are senior managers and managers of the SASSA finance department. These population is situated at various Regional Offices across the country.

4.4.3 Sample design

Sampling can be described as a method of electing only a small group of participants out of a large group. Collins and Hussey (2009) argued that the sample should signify the population from which it is drawn. They further stated that it is necessary to ensure that the chosen sample is unbiased in how it represents the population under study.

The sample was drawn from the SASSA finance department in the nine regional offices, including head office. The employee establishment, with a population of twenty employees within the finance department, was used as a building block to source participants for this study. A purposive, homogeneous sampling method was applied to acquire a sample of ten participants within the finance department and h their availability for interviews was confirmed.

The researcher attempted to contact all in the sample to establish possible participation in the study. The ten participants were all managers and senior managers who are actively involved in costing and budgeting and were generally at management level, as this formed the basis for the sample. Thomas (2003) contended that the selection of participants using a purposeful technique empowers the researcher to identify those who will respond to the research question.

In this study, the sample used consisted of ten participants who are senior and middle managers in SASSA. As Burmeister and Aitken (2012) suggested, neither a large nor a small size of the sample guarantees data saturation; rather what constitutes the sample size is of significance. They further argued that the researcher should select the sample size that has the highest chance of reaching data saturation. The sample size should, however, be informed by data saturation (Crouch & McKenzie 2006). The researcher views the sample size as being sufficient to source responses for the questions probed.

4.4.4 Data collection

The literature review relates studying various sources such as journals and electronic data that were relevant to the topic. Moser and Korstjens (2018) contended that the purpose of collecting primary data is to contribute in resolving a problem. They further suggested that primary data could range from audio data, video data, text data or a combination of these.

The study was conducted doing semi-structured interviews that were held at the participants' places of work at SASSA offices in Pretoria and Cape Town. Interviews were audio-recorded using a voice recorder and the researcher took additional notes. The audio recordings were transcribed by a transcription professional and a certificate of authenticity was issued.

4.4.5 Data analysis

Flick (2014) defined qualitative data analysis as the method of narrative, grouping and the mutual connection of phenomena with the researcher's thoughts. This was supported by Smith and Noble (2014) who stated that it is a collaborative method where data are analytically investigated to provide an explanatory account of phenomena. Schumacher and McMillan (2006) defined "qualitative data analysis as an inductive process of arranging the data into classes and identifying designs among the classes". Transcripts of five semi-structured interviews were used for data analysis. Each transcript was carefully studied to ensure correct interpretation of the participants' responses to questions.

Manual coding using a spreadsheet was applied for the content examination to evade considering incorrect interpretation phrases. Primarily, each theme resulted deductively from literature, following which new ones emanated inductively from the interviews. Each participant's verbatim response was captured on the spreadsheet in the column relevant to the theme to compare across the participant's views. A column was, therefore, inserted to reflect participants' comments, laying a structure that resulted in simplified coding. Concepts were searched and identified to find relationships between the identified passage in the responses in order to examine it in a structured manner. Coding and content relevance were applied to obtain the significance of each topic. Consequently, an integrated view of the verbatim comments and the context was used, tolerating biasness while using a basis of logical analysis.

4.4.6 Reliability of the research findings

Salkind (2012) argued that reliability occurs when the same outcomes are yielded if a test is measured more than once; it should accomplish in the future as it did in the past. Whether the study will bring the same outcomes if it were to be done again, is a question the research must address. Reliability also refers to the consistency of the

measuring instrument in producing similar results across groups of individuals at different times. A trial study was carried out to test the reliability of the measuring instrument, which was done in the form of interviews to test the instrument. Pilot testing identifies shortcomings that can be resolved before the full study is undertaken.

4.4.7 Validity of the research findings

According to Salkind (2012), validity refers to demonstrating the accuracy that the instrument being used measured what needed to be measured. The notion of validity is defined by a number of different terms in qualitative methods, as suggested by Golafshani (2003). According to Leung (2015), the validity of research could be defined as the suitability of the instruments, processes and data. As Creswell (2013) argued, despite the diverse perspectives of validity among researchers, generally, there is consensus; however, credibility must be demonstrated.

The above was supported by Marshall and Rossman (2014) stating that appropriateness certifies that the preferred research instruments measure what is required. The validation of this study was recognised by consulting experts on the subject matter before designing the final sets of interview questions. The process confirmed the relevancy of the questions and that they were aligned with the research objectives.

4.4.8 Credibility of the research findings

As Polit and Beck (2009) argued, the most vital criterion of the confidence in the accuracy of the study and, by extension, its findings, is credibility. The credibility of a study is achieved by presenting results that adequately describe the context and that people with similar experience could recognise it (Hammarberg, Kirkman & De Lacey, 2016). For this study, standard procedures appropriate for or relevant to the qualitative approach were used and, where variations existed, adequate justification was provided. This empirical research was, therefore, conducted similar to other empirical studies. The credibility of this study was maintained by an extensive explanation of the interpretation method. Verbatim quotations from the data were also supplied to illustrate and support its interpretations (Sandelowski, 1986).

4.4.9 Trustworthiness of the research findings

Polit and Beck (2009) defined trustworthiness or rigour of a study as the level of assurance in the data, understanding and techniques used to ensure the excellence of a study. The criteria for reliability and validity are envisioned to make qualitative research trustworthy. The validation of the study makes it possible for qualitative research to be generalised and useful when applied to other settings (Moors, 2008). For this study, the drive, procedural decisions and details of data grouping and management are apparent and clear, thus dependable (Hammarberg et al., 2016). Evidence of the findings of the research has been well documented to ensure conformity as a criterion for trustworthiness (Lincoln, 1995). In general, there is an agreement among qualitative researchers about the necessity of trustworthiness in research findings; however, Leung (2015) questions what it entails.

4.4.10 Data saturation

Fusch and Ness (2015) defined saturation as a point where there is adequate information to reproduce the study when the capacity to reach further new information has been accomplished. The validity of the study could be negatively affected if data saturation is not reached. The perceived number of interviews to reach this point differs from one study to the next; there is no one-size-fits-all process (Fusch & Ness, 2015; Marshall & Rossman, 2014). As proposed by Burmeister and Aitken (2012), the key to reaching data saturation is its thoroughness rather than just the number.

By interview no. 5, there was no new information to discover. The researcher asserts, therefore, that based on this investigation, the sample size is adequate to analyse the views of the participants. Data saturation was verified by detecting new codes developing from one interview to the next.

4.5 LIMITATIONS OF THE METHOD

As argued by Hofstee (2006), the method's limitations are those elements that forbid the researcher from doing the study using the method from a perfectionist view. The researcher desired to draw characteristic samples from senior finance managers and managers from all nine regions, including head office. Time and resource restrictions, however, made it essential to draw only the most representative sample of this population.

This study used semi-structured interviews to obtain data; only three head office and two Western Cape region participants were interviewed. Triangulation of data collection might have enhanced the method, as this would have allowed participants to respond on questionnaires. The aim, however, was to gain insight from the participants in a setting in which they experience it and how they interpret what they experience.

4.6 ETHICAL CONSIDERATIONS

The Research Ethics Committee gave ethical clearance approval prior to the commencement of the interviews. All participants were provided with participant information sheet as a formal request for the research interview. Consent forms were provided to participants to sign and acknowledge the context and nature of the research. The participants' identification particulars were kept private by using pseudonyms. Personal particulars were detached from research database. (See Appendix A)

4.7 SUMMARY

This chapter discussed the research methodology used for this study. The qualitative research method was chosen and, as such, dictated a semi-structured interview method. The participants were chosen from a narrow population of the finance department at SASSA. While participants were not all essentially specialists in the subject of ABC, they were all vital officials concerning costing and budgeting. The targeted population designated for the interviews was drawn to comprise knowledgeable and experienced senior managers and managers at SASSA. The following chapter will present the results from this study in the manner of themes and the resulting investigation.

CHAPTER FIVE

RESEARCH FINDINGS AND ANALYSIS

5.1 INTRODUCTION

In the previous chapter, the research methodology employed in this study was discussed in detail. Collection of data through qualitative research using semi-structured interviews was the approach. It was chosen to combine the interpretative process that reflects the significance of connections and differences in perspectives within the same sample. Semi-structured interviews are a suitable approach that allowed for the flexibility of formulating the questions to do in-depth questioning. To best understand the phenomenon, the use of the qualitative method in collecting data will, therefore, improve the overall confidence in the findings of a study (Ngulube, 2013).

Themes and sub-themes were developed from the semi-structured interviews. Theme 1 focuses on the dependent factors for the successful implementation of ABC and is linked to the primary objective of the study, which is to do a comparative analysis of ABC as an alternative to traditional costing in SASSA. Theme 2 covers the importance of financial information systems in ABC implementation, which also links to the primary objective. Theme 3 reflects on ABM (and to some extent, to ABB), which is linked to the first and second part of the secondary objective, which is to evaluate whether the implementation of ABC could provide an alternative to TC and promote cost-effectiveness and accountability in SASSA and to investigate the current traditional costing method. Theme 4 focuses on the applicability and perception of ABC, which links with the third part of the secondary objective, which is to investigate the applicability of implementing ABC in the public sector and in SASSA.

Data collected from semi-structured interviews are analysed and interpreted in connection to the literature review discussed in Chapters 2 and 3. A discussion about the results obtained from the empirical study through the semi-structured interviews will be outlined. It will then be elaborated on how this relates to the main and secondary objectives of the study. Each theme and sub-theme developing from the interviews will be discussed in more detail, in addition to any specific comments from participants. Codes that were derived from each sub-theme will form the basis of discussion.

5.2 RESPONSE RATE

One of the shortcomings of this study was the participants' apathy. The proposed number of participants to be interviewed were ten; however, only five were interviewed. Participant six was scheduled and confirmed, but could not conclude the interview due to an emergency meeting with the National Treasury that he had to attend. The interview process was stopped after participant 5, as saturation was reached at that stage and the remainder of the participants were unavailable.

Fusch and Ness (2015) defined saturation from a grounded perspective as the point in coding when one finds that no new codes occur in the data and that there are growing instances of identical codes. The same view regarding the non-existence of new codes or themes has been expressed by Patton (2011). Saunders, Sim, Kingstone, Bakkers, Waterfield, Bartlam, Bourroughs and Links (2018) argued, however, that when additional data do not result in any new themes, then saturation has been reached.

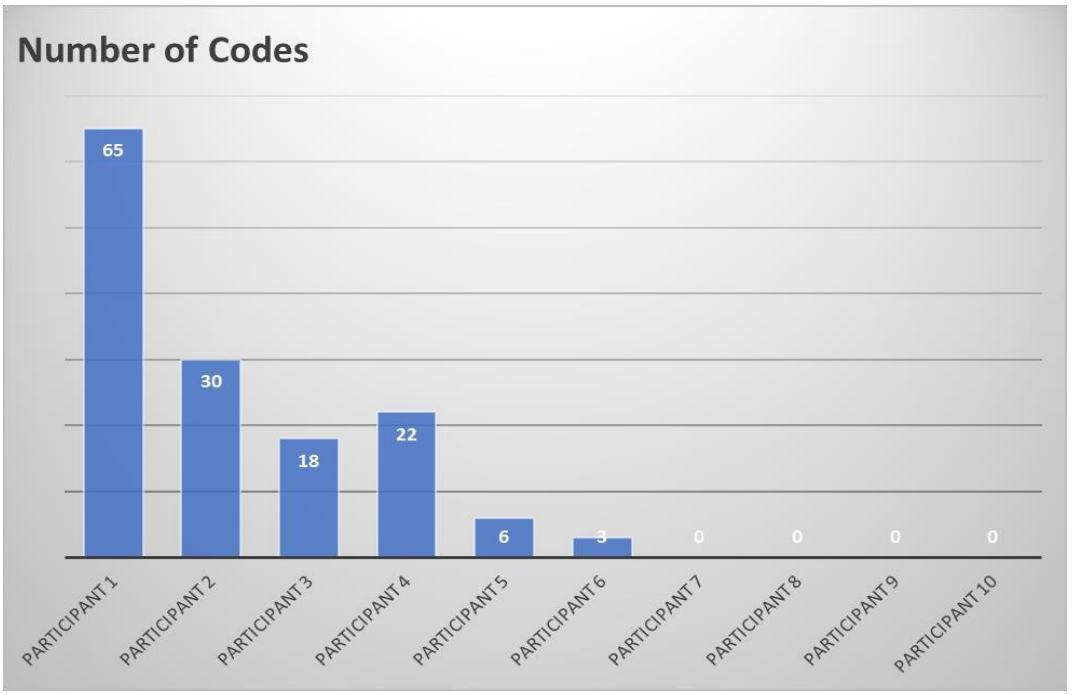

Figure 5.1: Number of Codes

Data saturation was established by detecting when new codes developed from each interview, as illustrated in Figure 5.1. Most of the new codes emerged from the first

interview to the fourth one. It, however, became evident from the fifth interview onwards that further coding was no longer feasible. The researcher is, therefore, confident that, based on this analysis, the sample size is sufficient. Decisions about the right time to stop collecting more data are generally dependent on the researcher's sense of what they hear in interviews.

As argued by Guest, Bunce and Johnson (2006), data saturation could be reached by approximately an estimated six interviews, based on the sample size of the population, while Dibley (2011) argued the richness and thickness of data as being crucial rather than the size.

5.3 ANALYSIS OF RESULTS

Semi-structured interviews were conducted at the SASSA offices, as stipulated in Chapter 4. Out of ten (10) participants proposed to be interviewed, five (5) were interviewed. The remaining participants were unavailable due to various reasons. Data saturation was, however, reached with participant number five. Consequently, the researcher did not pursue the remaining four participants. To confirm the findings from the research, a qualitative study was conducted using semi-structured interviews with five participants working at SASSA.

All the interviews were conducted at the offices of SASSA and voice-recorded using digital equipment. An interview schedule indicating the time and venue was developed and office space secured. All participants were comfortable, prepared and ready to provide answers without any disturbances. Participant six could not, however, respond to all the questions due to an unforeseen urgent meeting and had to abandon the interview.

The research was conducted so as to ensure open-ended responses from participants and gain insight in the participants' perceptions about factors to be considered for ABC implementation. Although all participants were from the finance department at SASSA, they were all working in different sections and could, therefore, provide distinctly different experiences regarding ABC.

For this study, a complementary approach of deductive and inductive qualitative content analysis was used to analyse the data. Transcripts of the five (5) semi-structured interviews were the basis under which the analysis was conducted.

Furthermore, this section defines the analysis methods used to arrive at the findings of the research. Each transcript was carefully considered and interrogated to gain a better understanding of the context that each participant was articulating.

The researcher started by reading each transcript and then focused on each response to the interview questions. Content analysis was conducted using manual coding to ensure a true reflection of responses and to avoid considering out-of-context phrases. Based on the literature, each theme emerges deductively and, from the interviews, new ones were allowed to be developed inductively. Therefore, the sub-themes were developed from these themes.

A spreadsheet was developed to record the contents of the transcripts to be analysed. Columns containing verbatim information from the participants were inserted representing each participant. The researcher populated each participant's column with their verbatim responses that corresponded to the themes. The horizontal reflection of verbatim responses across participants allowed comparison of their views relating to each theme.

An additional column was inserted where the number of verbatim comments that arose for each theme was inserted, providing a code-frame. Coding was simplified as a result of combining the themes. Due to out-of-context comments made by participants, responses were, therefore, not consistently used as a basis for the importance of the topic.

To obtain the significance of each topic, a combination of the coding and the content relevance was applied as an integrated view of the verbatim comments. Each theme and sub-theme developing from the semi-structured interviews has been discussed in full. The total number of themes developed was four, each having sub-themes which are elaborated in the next section.

5.3.1 Themes and sub-themes analyses

Emanating from the semi-structured interviews conducted, themes and sub-themes were developed which shares the same central concept as a theme. In order to prompt the crux of the participant's experiences, the following themes and sub-themes were developed:

Theme 1 analyses the dependent factors for the successful implementation of ABC. This theme consists of three sub-themes, namely:

- benefits of considering alternative cost allocation systems to traditional costing;
- key role players that should be involved in the ABC implementation initiative; and
- the impact of the accuracy of the available information provided to management to make strategic financial decisions.

Theme 2 analyses the importance of financial information systems in the implementation of ABC. This theme has two sub-themes, namely:

- the significance of an ERP system (Oracle) in the implementation of ABC; and
- the ability to identify the different cost components and its drivers.

Theme 3 evaluates employees' perceptions of resource allocation in the ABM environment. This theme consists of two sub-themes, namely:

- the focus on doing things correctly and performing activities more efficiently; and
- the impact of ABM on the promotion of more effective budgeting practices and strengthening monitoring controls.

Theme 4 analyses employees' perceptions about the applicability of ABC in SASSA. This theme consists of two sub-themes, namely:

- employees' perception of the implementation of ABC in SASSA; and
- the value of considering ABC implementation in SASSA.

Table 5.1 lists the themes with the sub-themes, as discussed in detail in this chapter. The schedule of semi-structured interview questions has been attached as Appendix D.

Table 5.1: Themes and Sub-themes Identified from Semi-structured Interviews

Transcribing of audio interview	
Themes	**Sub-themes**
Theme 1 Dependent factors for successful implementation of ABC (Section A: Question 1 and 2; Section B: Question 1A, 2A, and 3A)	• Benefits of considering alternative cost allocation system to traditional costing • Key role players that should be involved in ABC implementation initiative • The impact of the accuracy of the available information provided to management to make strategic financial decisions
Theme 2 The importance of financial information systems (ERP) in the implementation of ABC (Section A: Question 4; and Section 1B)	• The significance of an ERP system (Oracle) in the implementation of ABC • The ability to identify the different cost components and its drivers
Theme 3 Efficient resource allocation is possible in an activity-based management (ABM) environment (Section B: Question 1C)	• The focus on doing things right and performing activities more efficiently • The impact of ABM on the promotion of more effective budgeting practices and strengthening monitoring controls
Theme 4 Applicability and perception about ABC (Section B: Question 1D and 2D)	• Employees' perception of the implementation of ABC in SASSA • The value of considering ABC implementation in SASSA

5.4 THEME 1: DEPENDENT FACTORS FOR THE SUCCESSFUL IMPLEMENTATION OF ACTIVITY-BASED COSTING

Theme 1 comprises all sub-themes relating to the type of the organisation and, as such, is intricately linked to the primary objective, which is to evaluate whether the implementation of ABC could provide an alternative to traditional costing. This theme is divided into three sub-themes. These are the benefits of considering an alternative cost allocation system to traditional costing, key role players that should be involved in the ABC implementation initiative and the impact of the accuracy of the available information provided to management to make strategic financial decisions.

(a) Sub-theme 1: Benefits of considering an alternative cost allocation system to traditional costing

All participants reflected extensive exposure to the budgeting process applicable to SASSA and it was demonstrated as supported during the interview: "*The bottom line for government is service delivery, but at the same time we need to ensure that service delivery is being delivered in a cost-effective way and we're getting value for money. And I think when you look at activity-based costing each project or programme then can be unpacked to assist us to understand what is the cost implications.*" *[2]*

Buttross and Schmelzle (2003) argued that the cost of delivering public services in an affordable manner could be determined by the implementation of ABC systems. They further suggested that, by using ABC, government could make a determination as to whether to outsource the services or to render the services.

Participant 1 also collaborated by stating that "*…and as a public entity we're not necessarily chasing profits, but we still need to render or deliver services in an effective, efficient and economic manner*".

This was further elaborated by participant [5]: "*And also, to deal with the issues of scarce resources as opposed to, or vis a vis, unlimited needs. ABC is one of the tools that can be used to alleviate or to plug the gap between limited resources and unlimited needs.*"

As argued by Brown et al. (1991), there is a need to appreciate why the government might desire better cost data on the services it provides, as the citizenry is applying

pressure to reduce costs. Participant [1] supported this view: "*So, with looking at the cost involved in delivering the service that we deliver, we really need to account for each and every cent, not only to account but having ways to cut the cost of delivering a service.*"

Understanding the activities that drive cost is fundamental to the principles of ABC. Kee (2012) argued that the cost of resources used to produce their services must be well understood. This view was emphasised by participant [4]: "*When it comes to ABC system you need to understand the activities, what are the outcomes or output you want to achieve?*"

The researcher observed that ABC could assist in the alignment of the strategic objectives of the public entity with the budget. This observation was strengthened by participant [2] who stated "*And it's not a matter of just an output. What is the outcome you want to achieve and what is the cost of that outcome to achieve it? In that way I think as government we can become more realistic in terms of budget allocation.*"

All participants are of the view that it will be more beneficial for SASSA to consider ABC as an alternative costing model to deliver services so that it is cost-effective and efficient. This is consistent with the findings by Oseifuah (2014), who argued that the deficiencies associated with traditional approaches when assigning costs to products and services could be overcome by using the ABC method in the public sector.

Table 5.2: Factors That May Influence the Initiative of ABC Implementation

Description	Social security reforms and regulation	Increasing proportion of overhead cost	TC unable to provide new business process information	Unsustainable growth of grant beneficiaries	Average
Disagree	0	0	0	0	**0**
Neutral	1	0	0	0	**0**
Agree	4	5	5	5	**5**

Table 5.2 shows that four participants agreed that social security reforms and regulation greatly affects the consideration of ABC implementation. Only one participant did not express any opinion. All participants agreed that the increase in the proportion of the overhead cost would have a major effect on the decision to consider

the implementation of ABC. All participants also agreed that it is difficult to use TC to gather information for the new business process.

(b) Sub-theme 2: Key role players that should be involved in ABC implementation initiative

Four (4) participants suggested that, for a successful implementation of ABC, top management must play a key leading role to ensure that lower-level employees are provided with the support required. The majority of participants agreed on a top-to-bottom approach and participant [3] added "*Secondly, also the executive authority, which is the minister, you also need her buy-in. Like our mother department basically, let me just say our mother department. We also need them because this is not a SASSA thing only. The mother department is also involved. We also need, and the other key stakeholders, it's management accounting and strategy because you cannot go about this thing without strategy and management accounting*".

The above confirms the findings from literature suggesting that, when management is not involved or supportive of the ABC initiative, it could negatively influence its success (Arnaboldi & Lapsley, 2003; Govender, 2011).

Participant [5], however, pointed out that the bottom-up approach would be better because "*I think the people who are directly involved with the activities are the ones who've got a better foresight and knowledge of the activities to be undertaken*".

It was suggested that management should fully support the ABC initiative by mobilising the required resources and developing strategies that could lead to the successful implementation of ABC. Change management initiatives should be undertaken at the initial stage in order to bring all the relevant stakeholders on board.

The perceived lack of backing from top management is considered a deterrent in the initial stage of ABC implementation, as indicated by some participants. The literature revealed that strong top management support is required, as it is nearly impossible to succeed without full support of those who are affected (Garrison, Noreen & Brewer, 2008; Govender, 2011).

(c) Sub-theme 3: The impact of the accuracy of the available information provided to management to make strategic financial decisions

Accurate and relevant management information is vital in making sound decisions about the organisation, as outlined by the participants. Participant [5] said that "*Yes, look, I think the information is accurate in the sense that it is structured, it is based on exactly what kind of information is required both financial and non-financial. So, I'd say it's a bit of quality assurance that is considered, especially in the sense that there's a specific unit that deals with provision of such information*".

This was supported by participant [3] who said that the information is also available on the intranet, including policies and publications that could be used to make sound decisions. Some participants were, however, not entirely convinced about the accuracy of the information since participant [1] said "*And with the current setting yes, some decisions can be made based on that information, but I don't think the information paints the full picture of what is happening within the processes*". This observation agrees with the finding that it is much easier to implement ABC where the key success factors are visible, namely, management accounting and information system ABC (Granof et al., 2000).

In summary, it is more evident that, given more accurate or relevant cost information, management depends on ABC to become more useful as a decision-making tool. The quality of management accounting information will reflect the decisions made by management (Duron, 2001).

5.5 THEME 2: THE IMPORTANCE OF A FINANCIAL INFORMATION SYSTEM IN THE IMPLEMENTATION OF ACTIVITY-BASED COSTING

Theme 2 comprises all sub-themes that are connected to using an integrated financial system to successfully implement ABC and, as such, are closely linked to the first sub-objective, which also investigates how financial systems promote cost-effectiveness and accountability and how it affects the ABC implementation success. This theme comprises two sub-themes, namely, the significance of an ERP system (Oracle) in the implementation of ABC and the ability to identify the different cost components and its drivers.

(a) Sub-theme 1: The significance of an ERP system (Oracle) in the implementation of ABC

All participants elaborated on using an ERP system as an integral part in the successful implementation of ABC. As suggested by participant [1]: "*So, ERP, Oracle to be exact, would play a big role in collecting, recording and helping analysing the information because it's an ERP system which means that it's… The whole organisation components should be integrated in the Oracle system for the purpose then of implementing ABC*".

Participant [2] added: "*Activity-based costing will never succeed if we don't have the system to support it. We cannot run activity-based costing on a manual system. Then all you're going to be doing is you're going to be frustrating the management, and you won't get the desired reports that you would need as management information. So, you can never run activity-based costing if you don't have the system to support it because you would need system support to be, because on activity-based costing you need to look at reports*".

Using legacy systems such as BAS and PERSAL would not be able to integrate information, as outlined by participant [5]: "*the ERP is one of the most effective tools of managing resources. And it is flexible, and its real time and it is configured in such a way that it can support the planned financial resources*".

Management reports are crucial in making strategic decisions, as supported by participant [2]: "*It cannot be delayed information. It needs to be current, it needs to be live, and therefore, I mean, from my understanding is ERP can do that*".

(b) Sub-theme 2: The ability to identify the different cost components and their drivers

Participants agreed that change in the level of unit of activity requested is affected by activity cost drivers. These drivers describe the cause-effect correlation between cost objects and activity consumption. Within the context of the public sector, these drivers should be process-driven.

Participant [1] stated that "*You say, if you talk of grant application up until approval, as soon as a person comes in what are the activities that are involved and how much time does each activity cost, I mean takes, and then what is an approximate cost linked to*

that activity, and so on and so forth?"

Participant [2] added: "*That's why I say, when I talk about management information system, if you're looking at a disability grant you can then extract that from the costing module to say okay, now it, I'm looking at disability in terms of what's the costing in terms of clients, in terms of hours, rates, whatever it is that the doctors charge you*".

Becker et al. (2009) observed that ABC could assist public organisations to allocate overhead costs to the services. This view was expressed by participant [2]: "*ABC is a financial system but what feeds into that is your policies and your procedures that we've implemented. A simple example would be a person's salary is part of the activity-based costing because it contributes towards the cost of the project. So, a simple thing is your attendance register, as an example, is a tool that needs to be made certain that it's electronic and it can be managed and fed into the costing module*". The literature, however, indicates that determining suitable cost drivers and groups of activities is often problematic (Kaplan & Anderson, 2003).

5.6 THEME 3: EFFICIENT RESOURCE ALLOCATION IS POSSIBLE IN AN ACTIVITY-BASED MANAGEMENT ENVIRONMENT

Theme 3 comprises all the sub-themes that relate to the effectiveness of ABC as a decision-making tool and, as such, is intricately linked to the second sub-objective, which is to investigate the current traditional costing method and how it affects ABC implementation success. This theme comprises two sub-themes, namely, the focus on doing things correctly and performing activities more efficiently and the effect of ABM on the promotion of more effective budgeting practices and strengthening monitoring controls.

(a) Sub-theme 1: The focus on doing things correctly and performing activities more efficiently

Participant [1] stated that "*it's about eliminating those non-value-adding but still get the desired output but now without these other unnecessary or non-value-adding activities because now, those non-value-adding activities now, or the inefficiencies definitely add to the cost as well of the service that we are rendering*".

The ABC system also helps to reduce activities that are not adding any value but are consuming resources without providing any benefits. A study by Amir et al. (2012)

demonstrated how ABC could help the university to find out where the costs are, what are the drivers and which could be low value-added costs to the cost object.

Participant [2] added: "*Because that's the only way you will find out whether you're being effective or efficient, and not make estimates or assumptions that an official came for five days a week or used a vehicle for two days, but how is it verified? Because then you know whether you've got too many staff, or you've got too many vehicles. You wouldn't know that, and how is it being utilised.*

(b) Sub-theme 2: The effect of ABM on the promotion of more effective budgeting practices and strengthening monitoring controls

Public organisations are gradually bound to give account for their actions and are expected to operate efficiently and effectively (Melese et al., 2004). This view was emphasised by participant [1] who said, "*Remember your ABC will assist in terms of cutting out inefficiencies, streamlining processes which means then the budget allocation that we're getting is definitely going into the more necessary activities and processes rather than those wastages that are in between*".

Participant [2] added: "*So yes, it'll put more responsibility and accountability on cost centres to be more circumspect in terms of what they want and what they deliver. And if there's savings, they need to answer well, why have you got savings? Were you effective or efficient or you just didn't deliver? If you're going to be exceeding the budget what caused that. And activity-based costing will then be able to pinpoint exactly where the issue and the problems are*".

A study by Melese et al. (2004) argued that management challenges facing the public sector include stressing outputs over inputs, improving efficiency in managing costs and improving accountability by binding budgets to performance. This view was shared by participant [5] who said, "*So, if you follow ABC you are able to scale down somewhere, and using ABC allows you to be able to look as to where you are able to re-prioritise and scale down because you would have planned the activities probably in their order of importance and priority*".

ABC supports transparency and efficiency in managing public sector activities. The study by Baird (2007) revealed that public organisations are reluctant to apply activity management practices to determine the costs of goods and services. Similar to ABC,

ABB gives more particular emphasis to overhead activities and their associated costs. It emphasises that, by controlling the level of activity, activity costs could be controlled. The traditional method of budgeting follows input-based tendencies; in contrast, ABB relates to an output-based approach, knowing that activities drive costs. “ABB views the business as a collection of activities, a perspective that links well with organisational strategy” (CIMA, 2008).

5.7 THEME 4: APPLICABILITY AND PERCEPTION ABOUT ACTIVITY-BASED COSTING

Theme 4 comprises all sub-themes that relate to the benefits of ABC implementation and employees’ perception of ABC and, as such, is intricately linked to the second sub-objective, which is to investigate the applicability of implementing ABC in the public sector in SASSA and its effectiveness.

(a) Sub-theme 1: Employees’ perception of the implementation of ABC in SASSA

The general perception of participants is that ABC is a better method than the current traditional costing that is being applied. Participants agree that the implementation of ABC would enable the organisation to focus on activities that create value in rendering services to the people. Participant [1] stated that “*We’re actually concerned about each and every activity. What does it cost? What time does it take? And in doing that it’s not only now about costing, it’s only about cutting out non-value adding activity. So definitely for me ABC is a better method*”.

Other participants supported the view expressed above and further pointed out the fundamental difference between the traditional method and ABC. According to participant [5], “*Yes, I agree. And the reason why I agree is that ABC improves resource allocation as opposed to traditional. The problem with traditional allocation is that you may perpetuate something wrong that might have been happening in the previous years. So, ABC actually prompts you to reflect, check and verify and see whether what, where you are funding is still relevant*”.

Participant [2] stated that “*And yes, they will be negative, but they need to understand how it will then improve in terms of what they want to do. And it will take a very long time in terms of government to try and get to the basis of activity-based costing but it’s something, I think, that needs to happen because from a national perspective our*

purse strings have been shrinking".

Table 5.3: Barriers to the Successful Implementation of ABC

Description	Resistance to change	High cost of implementing ABC	Lack of top management support	Lack of cooperation amongst departments	Average
Disagree	1	2	1	1	**1**
Neutral	0	1	0	0	**0**
Agree	4	2	4	4	**4**

Table 5.3 indicates that most participants agree that resistance to change, the high cost of implementation, the lack of top management support and the lack of co-operation among departments are barriers towards ABC implementation in SASSA, as it will be difficult to introduce a new costing method. Two out of five participants are, however, opposed to the view that the implementation cost of ABC is beyond reach.

Previous studies have shown that many public organisations have applied ABC and abandoned the attempt as a result of rising maintenance costs, employee dissatisfaction and lack of management commitment (Arnaboldi & Lapsley, 2003). Another research shows that the implementation of ABC is even more complex for the public sector than it is for the private sector (Collier, 1999).

While most literature promotes the benefits of ABC systems, there is, however, growing evidence indicating a relatively low rate of adoption of ABC (Innes et al., 2000). Although there was some level of ABC adoption by some municipalities, this is insignificant in relation participant's expectations. It appears that, from the perspectives of participants, the above factors could be the reasons for the difficulties in implementing ABC, thus agreeing with the observation by Innes et al. (2000).

According to Kaplan and Anderson (2007), the extension of ABC to the time-driven approach addresses the limitations indicated above. TDABC has made it simpler by treating each process as a distinct activity. Other findings, however, confirm that employees and their preparedness to accept and work with new ideas and innovation will increase when behavioural variables are part of the implementation strategy (Velmurugan, 2010).

(b) Sub-theme 2: The value of considering ABC implementation in SASSA

All participants agreed that it would be beneficial to implement the ABC system in SASSA to reduce the administrative cost of rendering social security services. Participant [3] said, "*And I also think, like this transition. Post Office, SASSA, the transition, SASSA it's… Yes, okay, even though the politicians and you know you must also look at the, at our beneficiaries and… But I think this will not only save SASSA some fiscus, the whole country, by just taking all the beneficiaries to the banks. Because this cash thing, it's very expensive. If they can just do a proper costing on this thing, you know, it can help. But then anyway we are controlled by politics*".

The above view was shared by participant [5], who said, "*Especially If you look at, let's take, for example, the current issue we have, fees must fall. Money was not made available over and above what's in the fiscus. Money was found within the fiscus, but it was taken elsewhere. By now the question is, how did they identify where the money is, based on the basis that when you also use ABC you are able to go and say, okay, probably we can scale down here, we can, you know, eliminate some of the things that we think can, are not as prioritised as free education. Because also I think it can play a role in that sense*".

A study by Tuccillo and Agliata (2018) argued that it is crucial to be aware of the problem of scarcity and it is, therefore, necessary to use resources cost-efficiently to achieve goals within the public sector.

Participant [2] added, "*Now, with the activity-based costing, SASSA cannot do it on its own. The reason I say that is that yes, we fall under social nets as SASSA, social cluster. But if you look at our social cluster, we've got SASSA, we've got Department of Health, and we've got Education. Currently there's free education, there's free health services, we need an integrated approach, ABC can help us to achieve it*". This agrees with the research regarding some of the benefits of ABC (IMA, 2006; Kaplan & Anderson, 2003; Sartorius et al., 2007).

5.8 SUMMARY

Chapter 5 discussed the results from the semi-structured interviews under the different themes and sub-themes. These themes were developed based on the interviews conducted and past research relating to the objectives of the study. It was found that

ABC could be critical in aligning the strategic objectives and the budget within the public sector, emphasising the understanding of key activities that influence the behaviour of cost.

The four main factors that could drive the initiative of ABC implementation are social security reforms and regulation, increasing the proportion of overheads cost, the inability of TC to provide information on the new business process and the unsustainable growth of grant beneficiaries. Participants view this initiative as a breath of fresh air, considering the effect of such an intervention. The success of the ABC implementation initiative largely depends on the unwavering support of the key decision-makers, which is top management. Equally important is the buy-in of the key users who will be affected by the change. When top management is prepared to channel the resources required for the project and everyone else plays their part, then success implementation is almost certain.

Participants are of the view that, since an ERP (Oracle) system is already in place, the crucial part is to customise the system to enable ABC implementation. The integration of different components within the organisation is possible in an ERP environment. Participants also commented about their dissatisfaction that the ERP system is not optimally used to improve performance. This section of the chapter concludes the analysis of the results from the empirical study and considers the literature review discussed previously. The following chapter will deal with the findings regarding the objectives and recommendations relating to ABC implementation in the public sector. Finally, future studies related to ABC and other management techniques particularly in the public sector is recommended.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1. INTRODUCTION

The penultimate chapter provides an analysis of the empirical study and research findings. This final chapter reviews significant findings regarding the research objectives of the study. The main objective of the study is to evaluate whether the implementation of ABC could provide an alternative to traditional costing and promote cost-effectiveness and accountability. The secondary objectives of the research are to investigate SASSA's current traditional costing method and the applicability of implementing ABC in SASSA and its effectiveness.

The first part consists of the summary of the research and results of the research objectives. The limitations of the research, conclusions and the recommendations will then follow. This chapter will review significant findings regarding the above objective, present a summary of significant findings, summarise the conclusions from this research study and provide recommendations from the findings. Suggestions for future research studies will be also be outlined in this chapter.

This research evaluated whether the implementation of ABC could provide an alternative to the TC method in SASSA. A combination of literature and an empirical study by means of semi-structured interviews with participants from SASSA in the finance department was, therefore, applied. Exploring the applicability of implementing ABC in SASSA was attempted using various angles. The interview approach used for the interviews was designed to prompt participants to be open about their perspectives. These interviews also persuaded participants to reveal their practical experience of costing methods.

Participants were encouraged to disclose the difficulties and setbacks they are facing with the current costing system and to pronounce what they would consider to be a model of the ABC system. Past research formed the basis of the design of the interview plan, which emphasises the correlation between ABC success and enabling factors. The research objectives were derived mainly from these studies. The next section will illustrate the achievement of these objectives.

6.2. SUMMARY OF RESEARCH

ABC was developed as an alternative costing system because of the deficiencies identified with the conventional costing system, as outlined in Chapter 2. The fundamental principle of ABC, which is to identify activities and assign them to their cost drivers, presents a better understanding into cost causation that could enhance cost control. SASSA currently applies the traditional cost allocation method, which has limitations and shortcomings, as outlined in the literature review. SASSA is mandated to manage and distribute social grants to address challenges facing poor and vulnerable people in South Africa. It aims to provide a regular income to South Africa's poorest households, however, the unsustainable number of beneficiaries receiving social grants poses a challenge.

The administrative cost incurred in the delivery of social grants is an important element of this research. The significant portion of the administrative cost relates to distribution charges that should be kept at a sustainable level. When these costs are kept to a minimum, more funds could be channelled towards providing social grants. In this study, the researcher aimed to investigate the implementation of ABC, extended to TDABC, and how it could improve efficiency in managing the escalating administrative cost of social assistance in SASSA.

To gain more insight and to answer this problem, the researcher focused on primary and secondary research objectives. To achieve these objectives, the researcher considered a literature review and semi-structured interviews to illustrate and discuss the findings. The following section will provide a detailed analysis of the findings and their effect on each of the research objectives.

6.3. OUTCOMES OF THE RESEARCH OBJECTIVES

The outcomes regarding the objectives, as stated in Section 1.4, are discussed in this section. This discussion demonstrates how these objectives were achieved and illustrates the outcomes. The alignment of the findings with the primary and secondary objectives are discussed.

(a) Primary objective: To do a comparative analysis of ABC as an alternative to traditional costing in SASSA

This objective was established in order to gain insight as to whether ABC adoption could generate better results than the current TC method in SASSA. It was found in Section
2.3.1 that TC systems allocate the overhead costs arbitrarily, while ABC traces costs by means of resources and activity drivers that expose activities and the consumption pattern of objects. The literature revealed some of the benefits of ABC, including that it allows for a more comprehensive insight about overheads, makes costly and non-value adding activities clearer and complements other management techniques.

By drawing parallels between the two systems, it was established that it is relatively expensive to implement and maintain ABC than it is for TC. ABC allocate costs to products and services from activity costs pools, while TC uses volume-based allocation. It was also established that ABC is at the heart of ABM, which can align planning, budgeting and management decisions.

Participants are of the view that, although SASSA as a public entity is not driven by profit but rather by service delivery, it must be done cost-effectively and reflect accountability. Another view expressed by participants during interviews was that ABC could be used as a tool to close the gap between scarce resources and unlimited needs. This could be viewed as an attempt to address the challenges with the escalating administrative costs by using modern costing systems.

(b) Secondary objective 1: To evaluate whether the implementation of ABC could provide an alternative to TC and promote cost-effectiveness and accountability

This objective was established in order to gain insight as to whether the adoption of ABC could create the efficiency that is lacking from the TC method that is being used in SASSA. As reflected in Section 2.6, it was suggested that there was an increase in interest of ABC adoption among public sector institutions, including municipalities. This was also corroborated by findings from studies within the South African context. It was emphasised that ABC adopters experienced difficulties during implementation such as behavioural aspects, which requires a special focus to overcome. Through the interviews, it was found that participants are of the view that the perceived lack of

support from top management is considered a deterrent in the initial stage of ABC implementation. When new initiatives are introduced in an organisation, employees tend to be affected by the fear of the unknown. Change management is a better way to deal with the situation. In Section 2.7, the ERP system was also reflected as one of the elements influencing the successful adoption of ABC in organisations. The researcher found that participants agreed that the public sector, and SASSA in particular, requires accurate cost data on the services it renders, which would result in effective, efficient and economical delivery of services to people.

(c) Secondary objective 2: To investigate SASSA's current TC method

The objective was established in order to investigate how the current TC method applied in SASSA could be used to contain the administrative cost of social assistance. In Section 3.8, it was established that SASSA's administrative cost in 2018/19 was 5.1% of the expenditure on social grants and is projected to fall to 4.4% by 2021/22 over the medium-term. SASSA receives the budget from the DSD to fulfil its mandate as contained in the Social Security Act. In the interviews, it was found that participants are of the view that SASSA as a public entity is not profit-driven, but is required to render services effectively, efficiently and economically. The literature revealed that more pressure is being placed on public organisations to improve service delivery and citizenry demands accountability. It was reported that, under the current costing method, it could be assumed that it costs SASSA R411,60 in administrative costs to produce a social grant product, thus the need to do more with less; hence, an innovative and creative way of containing costs is critical.

The researcher also found that the participants agreed that, as the national fiscus is shrinking, new management techniques are required to deliver social grants sustainably. Participants indicated that the allocation of overheads using TC methods poses challenges, as they regard volumes as an important factor in determining costs. It was also revealed that ABB detects activities and their cost drivers. It could also be applied as a tool that projects the number of units of cost driver for the required activity level and calculate the cost driver rate. Participants agreed that SASSA should initiate the process of adopting the ABC method to better manage and integrate the important aspects of planning, budgeting and reporting. This will conform with the ABB principles.

(d) Secondary objective 3: To investigate the applicability of implementing ABC within the public sector, particularly in SASSA, and its effectiveness

This objective was set in order to ascertain the applicability of ABC within the public sector and, particularly, in SASSA. The literature review in Section 2.4 found that ABC was implemented in the public sector with a high prevalence in the UK and US; however, within the South African environment, there is too little to show. The literature also revealed evidence of public sector adopters ranging from municipalities, libraries and hospitals. Many of those who implemented it, however, abandoned it because of a lack of management commitment. The active participation of top management will enhance the chances for successful implementation of ABC. It was established that participants agreed that top management is crucial in implementing ABC.

The researcher found that the participants were of the view that the implementation of ABC would enable SASSA to focus on activities that create value when rendering services to the people. SASSA renders social security services that require a better understanding of activities and cost drivers to efficiently deliver social grants. The number of beneficiaries that request social grants affects the activities that require SASSA to render services, so the relationship exists.

The researcher established that the participants agreed that it would be beneficial for SASSA to implement ABC to gain a better insight into what drives the administrative costs of rendering social security services. Factors to consider for ABC implementation, which were discussed in Section 2.7 of the study, are behavioural and organisational. These factors include training, top management commitment and availability of internal resources. For a successful ABC implementation, these factors are overly critical.

From the case study of grant operations branch example in Chapter 3, it was established that the cost driver rate is calculated based on the cost assigned to the activity divided by the demand for that relevant activity. These rates are much lower than those determined under the TC method. When armed with these valuable activities and cost information about products, managers could make better decisions.

(e) Secondary objective 4: To explore how the implementation of TDABC on conventional ABC could lead to effective cost management

This objective was set to establish how TDABC could result in the effectiveness of managing administrative costs in SASSA. It was found in Section 2.8 that two estimated elements are required for TDABC, namely, the unit cost of supplying capacity and the time required to perform it. The study also reported in Section 2.8 that the TDABC could help managers in the public sector to create more efficiencies when rendering services.

The interviews indicated that the participants at SASSA share the same view, namely, that reprioritising and streamlining operations could lead to improved efficiency in delivering services. Participants were, however, somehow sceptical about the accuracy of non-financial information available in making decisions. This could be detrimental when gathering relevant information to determine the estimated unit times spent performing an activity. This could also cause duplication of functions due to the inadequate documentation of activities to use in ABC implementation in SASSA.

6.4. CONCLUSIONS

This study aimed to evaluate whether the implementation of ABC could provide an alternative to traditional costing and to promote cost-effectiveness and accountability. The study concluded that ABC could be implemented as an alternative to the TC method in SASSA on a pilot project basis. Based on the concluded research, it is, therefore, crucial for a prospective ABC adopter to take cognisance of the factors to be considered for the successful implementation of ABC. What is also important is that the benefits flowing from having enhanced costing information should exceed the additional administrative work to produce it. Accordingly, all the objectives of the study as well as the aim of the study were met.

6.5. LIMITATIONS OF THE STUDY

For the accurate interpretation of the findings presented, some limitations should be acknowledged and noted, as they present opportunities for future studies:

- There is a limited literature review regarding ABC implementation and its benefits for the public sector, particularly from a South African perspective.

- As illustrated in Section 4.5, the scope of the study was restricted to the SASSA finance management team. The findings represent only a small portion and could have been different if a wider range, which included the grant administrative section that forms part of SASSA's core business and other supporting sections, had been selected.

- Representation from the district and local level were excluded from this study since the focus was on the regional and national level; hence, the scope does not represent the entire SASSA.

6.6. FRAMEWORK FOR THE SUCCESSFUL IMPLEMENTATION OF ABC

Table 6.1 represents the recommendations that SASSA should consider in laying the foundation to commence the process of ABC implementation.

Table 6.1: SASSA Framework for the Successful Implementation of ABC

Factors	Description
Top management commitment	• Support of senior management is a key element to the success of ABC implementation. • The participation of management could be critical, as this would make them understand when and which resources are necessary for ABC. • The matters that are raised during the new costing system implementation stage could be better handled through change management process.
Establishment of project team	• Propose a distinguished official to lead the initiative; this should also be accepted by lower-level staff. • Management accounting support for this initiative is essential and critical.

Factors	Description
	• ABC system design requires necessary skills and training which management accounting staff could perform. • Their sound knowledge and expertise of costing methods could lead to prudent approaches for the allocation of costs to activities and cost objects. • IT function could play a critical role to be included on the cross-functional ABC project team.
Education and training	• Training is an integral part of the successful implementation of ABC. • Those who design the new costing system should have a clear understanding of the different approaches that would result in the most cost-effective system.
Allocation of resources	• Integrate ABC with a performance management model so that it also becomes a central source of performance measures.
Expertise required	• Data applied in developing an ABC system could also come from interviews and questionnaires focused on personnel because they are the appropriate source of this information.
Communication	• An appropriate communication strategy is essential to drive an important message to all the stakeholders about the need for change.

Factors	Description
Partial implementation	• Planning for the ABC initiative could proceed provided that all the initial issues concerning ABC model design and structure are cleared. • The ABC initiative project could be piloted for implementation based on actual budget and expenses. • A proper project management structure and project plan are prerequisite for smooth and seamless implementation. • Full implementation of the ABC system is entirely dependent on the successful pilot project phase that could be used to validate the business case.

6.7. RECOMMENDATIONS

The empirical results established that the implementation of ABC could provide an alternative to traditional costing and promote cost-effectiveness and accountability. It was, however, suggested that SASSA investigate the following aspects:

- Management accounting to initiate the establishment or consideration of ABC implementation in SASSA on a partial or trial basis, on a component approach.
- All relevant stakeholders should form part of the initial stage of the ABC implementation.
- Identify key components of the core business that have a significant influence as well as elements on cost drivers. This will form the basis for considering ABC implementation.
- On ABC implementation, consider using an internal ABC application that could be integrated with an existing ERP system (Oracle). The implementation cost

of ABC must, however, be weighed against its benefits, that is, a cost-benefit analysis should be undertaken.

- Develop clearly-defined activities on Oracle and assign them to their cost objectives to ensure correct alignment.

- Ensure that training on ABC dynamics is provided to all key officials, including management; this will strengthen their analytical skills in analysing ABC.

- Consider the possibility of converting to TDABC on conventional ABC in the future.

6.8. SUGGESTION FOR FUTURE RESEARCH

Drawing from the research conducted, further studies on the implementation of ABC principles within the public sector could be pursued to:

- investigate how ABC could be applied as a financial planning tool to support the budget process linked to business plans that are logically derived from strategic goals;

- explore the effectiveness of complementing ABC with other management theories such as mean management or theory of constraints. Further research could also be conducted on identifying the gaps and strength of two complementary dimensions; and

- the impact assessment of performance on the implementation of ABC was not measured in this study and a quantitative study in the public sector could further broaden this study.

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APPENDIX A: ETHICAL APPROVAL

UNISA university of south africa

Appendix A

UNISA COLLEGE OF ACCOUNTING SCIENCES ETHICS REVIEW COMMITTEE

Date 2017-08-02

ERC Reference:
2017_CAS_031
Name : Mr MJ Maluleke
Student/ Staff #: 31421156

Dear Mr MJ Maluleke

Decision: Ethics Approval from 2017-08-02 to 2020-08-01

Main researcher: **Mr MJ Maluleke**
31421156@mylife.unisa.ac.za

Working title of research:

Comparative analysis of activity-based costing as an alternative to traditional costing within South African Social security agency.

Qualification: Master's degree

Thank you for the application for research ethics clearance by the Unisa College of Accounting Sciences Research Ethics Review Committee for the above mentioned research. Ethics approval is granted for three years.

The application was reviewed by the College of Accounting Sciences Research Ethics Review Committee on 25 July 2017 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment, and approved.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College of Accounting Sciences Research Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

Prof E Sadler, Executive Dean: College of Accounting Sciences
University of South Africa, Alfred Nzo West Building Z-113
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392, UNISA 0003, South Africa
Telephone: +27 12 429 4432 Facsimile: 086 510 8807
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4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No field work activities may continue after the expiry date of this certificate.

Note:

The reference number of this certificate should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,

Ms L Grebe
Chair of CAS RERC
E-mail: grebel@unisa.ac.za
Tel: 012 429 4994

Prof E Sadler
Executive Dean CAS

APPENDIX B: PARTICIPANT INFORMATION SHEET

06 Jun 2018

Dear Prospective Participant

You are hereby invited to participate in a study entitled “Comparative analysis of activity based costing as an alternative to traditional costing in SASSA.”

WHAT IS THE AIM/PURPOSE OF THE STUDY?

The aim of this study is to investigate the implementation of activity-based costing (ABC), extended to time driven activity-based costing (TDABC) and how it will improve efficiency in managing the escalating administrative cost of social assistance in SASSA.

I am conducting this research to find out the applicability of ABC implementation in the public sector and in SASSA in particular.

WHY AM I BEING INVITED TO PARTICIPATE?

You are being selected to participate in the study because of your expertise and knowledge in the subject matter under investigation. Furthermore, you may provide valuable information that will allow the researcher to assess if the implementation of activity-based costing as an alternative to the traditional costing (TC) method will result in efficient administration cost of social grants in SASSA.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY / WHAT DOES THE RESEARCH INVOLVE?

The study involves questionnaires and audio taping of semi-structured interviews with middle and senior management in SASSA. The questions will cover the following areas:

- Factors to be considered when deciding on the implementation of ABC in SASSA – general knowledge of the current traditional costing method applicable to SASSA and other alternatives.
- The availability of financial and non-financial information to support the strategic decisions.
- Help the researcher to understand the process in the identification of activities and the cost drivers applicable to SASSA operations. (e.g. the number of medical assessments performed in the disability grant process and the rate charged per assessment)
- The perception about the benefits and barriers of ABC adoption in SASSA

The expected duration of participation and the time needed to complete research activities for questionnaires will be approximately 10 minutes, while the semi-structured interview is expected to last for about 45 minutes.

CAN I WITHDRAW FROM THIS STUDY?

Being in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

Your participation will enable the researcher to complete the research project and provide valuable insight on the decision to consider the implementation of ABC in SASSA. Another benefit is that it will also provide management with baseline information regarding the factors for the successful implementation of modern costing systems that are activity driven.

WHAT IS THE ANTICIPATED INCONVENIENCE OF TAKING PART IN THIS STUDY?

Creating time for the interview or the completion of the questionnaire will be the only factor to be considered, however the researcher is flexible in terms of allowing you to suggest the date and time suitable to you.

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

Your name will not be recorded anywhere and no one will be able to connect you to the answers you give. Your answers will be given a fictitious code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

Your answers may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Committee. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

By participating, please note that your anonymous data may be used for other purposes, e.g. research report, journal articles, conference presentation but your privacy will be protected in any publication of the information. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

HOW WILL INFORMATION BE STORED AND ULTIMATELY DESTROYED?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet at home for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. Information will be destroyed by way of shredding and formatting of electronic media after 5-year period had expired.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There are no financial rewards for participating in this study, and no costs are anticipated to be incurred by the participant.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received written approval from the Research Ethics Committee of the College of Accounting Sciences, Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS?

If you would like to be informed of the final research findings, please contact Mashangu Justice Maluleke on 072 306 9871 or 021 469 0320 31421156@mylife.unisa.ac.za. The findings are accessible for the period of publication. Should you have concerns about the way in which the research has been conducted, you may contact Professor Merwe Oberholzer on 083 564 3391 or merwe.oberholzer@nwu.ac.za

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

Signature
Maluleke MJ (Mr.)

APPENDIX C: PARTICIPANT CONSENT FORM

I,_____(participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be anonymously processed into a research report, journal publications and/or conference proceedings.

I agree to the recording of the interview.

I have received a signed copy of the informed consent agreement.

Participant Name & surname… ..... (Please print)

Participant signature……Date……

Researcher’s name & surname… .....(Please print)

Researcher’s signature……Date…….

Witness name & surname. .....(Please print)

Witness’s signature…….....Date….....

APPENDIX D: INTERVIEW SCHEDULE

The interview schedule will contribute towards the completion of a Master of Philosophy degree at the University of South Africa.

This research is done via qualitative research as the researcher seeks to explore the applicability of ABC implementation in SASSA and its effectiveness. The researcher is making use of semi-structured interviews. Part A may be completed by the participant prior to the interview, whereas Part B will be questions posed to the participant at the interview and will require a verbal response.

SECTION A: Questions for the Participant to answer before the interview

Please indicate your response by marking a cross in the relevant box

1. **Implementation of ABC in SASSA**

   a. Implementation of alternative to the traditional costing method should be considered by SASSA.

Yes	No

2. **ABC initiative in SASSA**

   Please indicate the level of importance of each of the following factors in the decision to adopt ABC.

No.	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

a)	Increased social security reforms and regulation	1	2	3	4	5
b)	Increasing proportion of overhead cost	1	2	3	4	5
c)	traditional cost systems unable to provide relevant information in the new business process	1	2	3	4	5
d)	Unsustainable growth of grant beneficiaries	1	2	3	4	5

3. Perceived barriers impeding the adoption of ABC.

a. What problems do you think SASSA could encounter during the implementation of ABC?

No.	Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a)	Resistance to change	1	2	3	4	5
b)	High cost of implementing ABC	1	2	3	4	5
c)	Lack of top management support	1	2	3	4	5
d)	Lack of commitment and cooperation amongst department	1	2	3	4	5

4. The ERP (Oracle) system in the integration of information

a. In your opinion, the optimal application of Oracle will enhance the successful adoption of ABC.

Yes	No

SECTION B (Interview questions that will be asked by the researcher)

In the interview, the researcher will be asking the following questions which will require a verbal response.

A. Activity Based Costing (ABC) implementation

1A In order to contain cost and apply sustainable allocation measures in line with government priorities, new allocation systems deserve consideration. Should ABC be considered for implementation in SASSA and why?

2A Successful implementation of ABC is dependent on the buy-in of the key role players. Who in your opinion should be involved in ABC implementation initiative and why?

3A The current allocation system provide management with financial and non-financial information to make informed decisions. How accurate and sufficient is the available information provided to management to make strategic financial decisions?

B. Given that you believe that ABC is important in costing and monitoring of activities for efficient and effective management of resources therefore financial information system becomes critical.

1B What in your view is the significance of an ERP system (Oracle) in the implementation of ABC?

2B Should ABC be implemented in SASSA, how would you go about identifying the different cost components and its drivers?

C. Efficient resource allocation is possible in an Activity based management (ABM) environment which is based on the principles of ABC.

1C The nature of ABM is that it enhances operational efficiency, focuses on doing things right and performing activities more efficiently. What should be different regarding efficiency when ABC is successfully implemented in SASSA?

2C The use of ABC as a management technique will contribute towards promotion of more effective budgeting practices and strengthens monitoring controls. Do you agree/disagree with the above statement and why?

D. Applicability and perception about ABC

1D ABC is perceived to be a better method than the traditional costing method, do you agree/disagree with the statement and why?

2D Given the current socio-economic trajectory and inevitable social security reforms under which SASSA operates, it requires prudent systems for better planning and resource allocation decisions. In your opinion, why should ABC be implemented or not implemented in SASSA?

APPENDIX E: EDITING CERTIFCATE

LET'S EDIT

EDITING CERTIFICATE

04 November 2019

TO WHOM IT MAY CONCERN

DECLARATION: Editing of Dissertation

This certificate is to record that I have completed a copy-edit, layout and reference list check of **Mashangu Justice Maluleke**'s Master of Philosophy in Accounting Sciences dissertation **"COMPARATIVE ANALYSIS OF ACTIVITY-BASED COSTING AS AN ALTERNATIVE TO TRADITIONAL COSTING IN SASSA".**

The edit included the following:

Spelling; Tenses; Vocabulary; Punctuation; Pronoun matches; Word usage; Sentence structure; Content (limited); Reference list check and format

The edit excluded the following:

Correctness or truth of information (unless obvious); Correctness/spelling of specific technical terms and words (unless obvious); Correctness/spelling of unfamiliar names and proper nouns (unless obvious); Correctness of specific formulae or symbols or illustrations

Name of Editor: Yvonne Thiebaut

Qualifications: Bachelor of Arts Honours (Psychology) degree and Bachelor of Arts (Theatre Arts & Drama) degree

Signature: Yvonne Thiebaut

Let's Edit is a Level 1 EME B-BBEE Contributor (Procurement Recognition Level = 135%)

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